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METROPOLITAN AND PROVINCIAL.

LEICESTER INFIRMARY.

OBSERVATIONS ON THE SACCHARINE TREATMENT OF DIABETES MELLITUS.

By JOHN SLOANE, M.D., House-Surgeon to the Infirmary, etc.

[*Read before the Leicester Medical Society, April 20th*, 1858.]

MR. CRANE, of Her Majesty's 90th Regiment, who was formerly a pupil at this Infirmary, told me, on his return from Paris in the spring of 1857, that during the preceding winter session M. Piorry had treated, with marked benefit, a case of diabetes mellitus by giving large quantities of sugar. In October last there was admitted under Mr. Paget's care a patient with double cataract, who was also suffering from diabetes. On being informed by me of the plan adopted by M. Piorry, Mr. Paget requested me to treat his patient with sugar. Singularly enough, Drs. Shaw and Crane each, about this period, had a case of diabetes under treatment in the Infirmary; and they shortly afterwards requested me to adopt the saccharine plan. Not having seen any published account of the mode of carrying out this treatment, I wrote to M. Piorry, who kindly sent me a letter containing the following statements.

"It is now a year at least since I treated with success by abstinence from drinks (*boissons*), and by the use of sugar in large doses, a patient under my care. This woman passed from twenty to thirty *litres* of urine, and took an enormous quantity of food. She had been in many hospitals, but nowhere had she obtained any relief. Put upon the preceding regimen, she passed scarcely two *litres* of urine in the twenty-four hours, and the urine did not contain more sugar than when she took none of it into her stomach. A note was addressed by me to the Institute, and was immediately accepted. Some months afterwards, this poor patient again took a large quantity of drinks, ceased all treatment, and went into another hospital, where she succumbed. I have not since had occasion to treat a case of true diabetes.

"The abstinence from drinks is certainly a very useful therapeutic agent. In this case, as well as in albuminuria, I have employed it with very great advantage. You will find some facts which I have related in my treatise on practical medicine, in the articles where I speak of glucosuria and albuminuria."

CASE I. Nov. 22nd. Elizabeth Lawrence, aged 23, residing at Earl's Shilton, was admitted under the care of Mr. Paget on October 20th. She is a framework-knitter, of healthy parentage, and has suffered no privations. She has now a sister in the Infirmary with diabetes mellitus. She is very temperate. She began to suffer from amenorrhœa three years ago; shortly afterwards her vision began to fail, and she thinks that for about the last year she has been passing an inordinate quantity of urine. She appears to be a delicate, badly developed girl, and seems younger than she really is. She has no pain, sleeps well, and feels very feeble. There is double cataract. The tongue is clean and moist; she has only eight teeth; the others "rotted away" about four years ago. The gums are congested, but do not bleed. She has much thirst; her appetite is extremely good; the bowels are regular without medicine. The lungs seem healthy. Pulse 72, rather small. There is no cardiac murmur. Not the least œdema of the feet or ankles is observed. The skin is dry and harsh. Her temper has been more irritable than formerly for the last six months. Hepatic dulness extended four inches and a half in a vertical line with the right nipple.

Since admission, she has been taking five grains of citrate of iron three times a-day, and has had the full diet of the Infirmary, with a pint of beer and a mutton chop in addition. She passed during the last twenty-four hours five pints of urine. I examined a specimen passed five hours. It was clear like water, of acid reaction, of specific gravity 1040, and contained no albumen; chlorides were abundant. Each fluid ounce of this urine contained fifty-six grains of sugar, as calculated by Garrod's glucometer. She was ordered to take half a pound of treacle daily; no other change being made in her medicine or diet.

Dec. 15th. During the last twenty-four hours she passed nine pints and a half of urine, nearly double the quantity she evacuated before she began to use the treacle. Each fluid ounce contained fifty-six grains of sugar, and the specific gravity was 1043. She had, however, gained three pounds in weight.

Jan. 28th, 1858. She passed eleven pints of urine during the last twenty-four hours. The specific gravity was 1046; and each fluid ounce contained eighty grains of sugar. She had since last report gained four pounds and a half in weight. She omitted the treacle and the medicine also. She was ordered to take two teaspoonfuls of cod-liver oil and twenty-five minims of tincture of muriate of iron three times a-day, and to have a pint of milk daily, in addition to the diet mentioned in my first report.

Feb. 28th. She passed four quarts of urine in twenty-four hours. The specific gravity of some passed this morning is 1045; each ounce contains seventy-seven grains of sugar. There has been no change in weight since last report. Perhaps I should mention that, ten days ago, I examined a specimen of her urine, the specific gravity of which was 1042, and each fluidounce contained sixty-three grains of sugar. She was ordered to omit her present diet, and to take instead half a pound of bran-biscuit prepared in accordance with Mr. Camplin's directions, tea without sugar, one pint of milk, three ounces of wine, a mutton chop, and one pint of beef-tea. No other article of food was allowed. Her medicine was continued as before.

March 2nd. During the last twenty-four hours she has passed five pints of urine. Some that she evacuated this morning had a specific gravity of 1046, and contained fifty-five grains of sugar in the fluidounce.

April 9th. She has continued to improve steadily and gradually since last report. She passed only three pints of urine in the last twenty-four hours, and each fluidounce contains forty grains of sugar; specific gravity 1046.

CASE II. Nov. 24th. Ann Coleman, aged 25, residing at Great Glenn, was admitted under the care of Dr. Crane on September 15th. She is a servant, of healthy parentage and of temperate habits. She suffered some privations when a child, but not lately. Four years ago she had an attack of typhus fever, from which she did not completely recover for twelve months. She was five months in bed, and for the remaining seven months was very weak. About twelve months ago, she began to suffer from her present illness, and has since been gradually becoming worse. She is small of stature and imperfectly developed, and appears to be much older than she really is. The cheeks are red; the veins of the face are unusually visible. She has no pain; sleeps badly; feels very weak; has observed no change in her temper; the special senses are unimpaired. The tongue is clean and moist; she has a good set of teeth. She has had no inordinate thirst for the last three weeks; previously, since her seizure, she had been very thirsty. Her appetite is very good—abnormally so. The bowels are regular. There is no cough; the lungs seem to be healthy. Pulse 72, small, feeble. There is no cardiac murmur; The skin is dry and harsh. There is no œdema of the feet or ankles. Hepatic dulness extends three inches and a quarter

in a vertical line with the right nipple. She weighs five stone and five pounds and a half. The urine is clear, like water, of acid reaction, and of specific gravity 1040; it contains no albumen; chlorides are present. The quantity of sugar, calculated by Garrod's glucometer, is found to be seventy-six grains in each fluidounce. She passed four quarts of urine in the last twenty-four hours. She is taking daily half a pound of common biscuit, two eggs, one pint of milk, three ounces of wine, one pint of beef-tea, half a pound of light pudding, and the common diet of the Infirmary. She has been treated with baths every other day at a temperature of 96° Fahr., and with five grains of compound soap pill three times a-day. She believes that she has derived benefit from this plan. She was directed to continue her present treatment and diet, and to take in addition half a pound of treacle daily. After three days the treacle was discontinued, as it induced nausea, and she said it made her feel very thirsty. She was ordered to take half a pound of honey instead.

Dec. 8th. The biscuit was omitted, and half a pound of bread substituted for it. She is now beginning to dislike the honey; but she was fond of it at first.

December 20th. During the last twenty-four hours she passed seven quarts of urine, being three quarts more than she voided in the same period before she began the saccharine plan of treatment. The specific gravity of the urine was 1043, and each fluidounce contained seventy-seven grains of sugar. She has lost two pounds and a half in weight since the date of my first report, and feels much weaker since then, and is much more thirsty. She was ordered to omit the honey.

Dec. 25th. The specific gravity of the urine was 1042; each ounce contained forty-five grains of sugar. She now began to complain of some cough. She was ordered to omit the baths and the opium, and to take two teaspoonfuls of cod-liver oil three times a-day in a dose of common cough mixture.

Feb. 20th, 1858. During the last twenty-four hours she passed five quarts of urine, of specific gravity 1040; each ounce contains forty-eight grains of sugar. She is now very thirsty, and is gradually becoming weaker. She was afterwards ordered the bran biscuit as in the preceding case, but after two days she refused to take it. She was, therefore, discharged.

Case iii. Nov. 28th, 1857. Hannah Lawrence, aged 14, residing at Earl's Shilton, was admitted under the care of Dr. Shaw on November 10th. She is a servant; has suffered no privations; is temperate; and has had no previous illness. She is sister to Elizabeth Lawrence, who is also suffering from glucosuria, and who is at present in this Infirmary.

About three months ago she began to pass more urine than normal, and has since been gradually getting worse. She cannot account for her illness. She appears to be well grown, but is slender. She complains of pain in the left hypochondrium at the margin of the ribs in a line with the left nipple. It is sometimes present for an hour, and may be absent for two days; but these times are liable to vary much. She feels weak. The special senses are not impaired. The gums are not spongy; the teeth are good, two only being carious. The tongue is clean and moist. She has much thirst; her appetite is good—inordinately so as compared to the state of health. The bowels are regular without aperient medicine. She has had a cough for the last week; no lesion of lungs can be detected on examination; she raises no phlegm. Pulse 104, of moderate fulness and force; there is no cardiac murmur. The skin is dry and harsh to the touch. She had œdema of the feet for a week previously to admission; this has since disappeared. Hepatic dulness extends from an inch below the nipple downwards three inches and a quarter. She has never menstruated. Since admission she has taken Griffiths' mixture three times a-day. She has the full diet of the Infirmary, with half a pound of bread and three ounces of wine in addition. She weighs five stone and four pounds. During last twenty-four hours she has passed nine pints of urine, which contains sixty-four grains of sugar in each fluidounce, as calculated by Garrod's glucometer. The reaction of the urine is acid; the specific gravity 1040; some opacity, produced by heat, disappears on the addition of nitric acid; the chlorides are scanty. She was ordered to take half a pound of treacle daily; no other change being made in her medicine or diet.

Dec. 20th. She passed during the last twenty-four hours the same quantity of urine as at the date of the last report. She has gained one pound in her weight. The specific gravity of the urine is 1045, and each ounce contains sixty grains of sugar.

Jan. 16th, 1858. She has lost four pounds in weight since last report. The quantity of urine passed in twenty-four hours is five quarts; each ounce contains seventy grains of sugar; specific gravity 1035. She has become much weaker since admission. She was discharged at her own request. She died on February 17th at her home in the country.

Remarks. In the first of these cases—that of Elizabeth Lawrence, who took the sugar for more than nine weeks—the results were, an increase of three quarts in the quantity of urine passed in twenty-four hours, the quantity being more than doubled; an increase in the amount of sugar from fifty-six to eighty grains in each fluidounce; and an increase in her weight of seven pounds. Ann Coleman took the sugar for one month with the following effects: the quantity of urine passed in twenty-four hours increased from eight to fourteen pints; the urine contained one more grain of sugar in each fluid ounce; and she lost two pounds and a half in weight. Hannah Lawrence took half a pound of treacle daily for six weeks; and the results were that she lost four pounds in weight, passed during twenty-four hours one pint more urine, and this urine contained an increase of four grains in each fluid ounce. I do not mention the specific gravity as affording evidence of much value in judging of the progress of these cases, because it is liable to vary with the solid constituents of the urine, of which, besides the sugar, as is well known, there are several, and these vary with the amount of exercise, quantity of drink taken, etc.

As far as I know, there have been ten cases of glucosuria treated with sugar. The first, that under the care of M. Piorry, referred to previously in this paper, was much improved and passed much less urine, which contained no more sugar than it did before this plan of treatment was commenced. The remaining cases have all been published in the British Medical Journal during the past and the current year. Dr. Budd, of Bristol, was the first in this country to try this agent. He had previously seen an account in the *Gazette Médicale*, of M. Piorry's case. Dr. Budd's patient improved much while taking the sugar, which he did for five months; the quantity of urine voided was very much lessened, and although the quantity of sugar it contained was never exactly determined, its specific gravity fell, and we may, therefore, infer that it did not increase; and the man gained twenty pounds in weight. In two gentlemen under the care of Dr. Williams, of Swansea, the saccharine treatment, which was continued for three days only, made them rapidly worse. In both, the quantity of urine passed was doubled, and the specific gravity increased from 1040 to 1056. Similar injurious results were noticed in a female, under the care of Dr. Burd, of the Salop Infirmary. Marked benefit, however, was obtained under this treatment by a patient under the care of Dr. Corfe, of the Middlesex Hospital. This diabetic, having taken sugar for about six weeks, gained eighteen pounds in weight. He passed three pints and three-quarters of urine in the twenty-four hours, instead of five pints, and the quantity of sugar had decreased from 100·28 to 20 in 1000 parts. A patient under the care of Dr. Brittan, of Bristol, after taking sugar for two weeks, had gained a pound in weight, the daily quantity of urine voided decreased from ten to six quarts, and its specific gravity was four degrees less.

In six of the ten cases the sugar appears to have been injurious, while in the remaining four it seems to have been decidedly beneficial. We may, therefore, say that, under certain conditions, the administration of sugar in glucosuria affords relief. These conditions have not yet been ascertained, but on carefully comparing the published reports of these ten cases, I find that in all those in which benefit accrued, the supply of fluid was limited, whereas in the others the patients appear to have drunk *ad libitum*. In the brief abstract of Dr. Brittan's case published by Dr. Budd, nothing is stated in reference to this point; but as in Dr. Budd's own case it appears that the quantity of liquids allowed was limited, it is extremely probable that his colleague's patient underwent a similar restriction. In the history of Dr. Budd's patient the injurious effects of large quantities of fluid were manifested. He was discharged much relieved; but after a sojourn of three days at his home in the country, during which, writes Dr. Budd, "he took advantage of his freedom from restraint to drink freely. During his absence he never took less than three quarts of cider daily, and once, by his own confession, he was the 'worse for liquor.' It was obvious on his return that he was not nearly so well. His skin had become harsh, his tongue was dry and brown, he was very thirsty, had lost his appetite, and he had grown rapidly weak. The day after his return he passed more than eight pints of urine, of specific gravity 1036; previous to his discharge, the average daily quantity of urine was five pints, of specific gravity ranging from 1031 to 1034. In the week that

began with his three days of absence he lost more than five pounds in weight. In the week following his weight fell still further, from 125 to 120 pounds. Put upon his previous treatment, he began to mend at the end of a fortnight."

Dr. Corfe's patient, as I have already stated, received much benefit; yet his progress at first was not promising, apparently owing to his not adhering strictly to his instructions, part of which was regarding the quality and quantity of his drink, which was to consist of a cup of coffee and half an ounce of candy sugar in the morning, a tablespoonful of rum in a glass of water, with the same quantity of sugar candy, and five grains of carbonate of ammonia at luncheon, and two glasses of claret at dinner. In the evening he was desired to take an ounce of honey on bread in lieu of butter, and to sup on boiled milk, with an egg, etc. After having continued the saccharine treatment for thirteen days, the following results were obtained: The urine increased from four to eight pints in twenty-four hours, and the quantity of sugar had increased nearly twelve grains in 1000 parts, and he had lost in weight more than a pound. It should be here remarked that he frankly acknowledged that he had not followed the directions of treatment in so strict a manner as he could have wished for. Although he felt stronger and more lively in mind, he had been to several festive parties, and had eaten freely of potatoes and bread on several occasions, and had drunk beer or bottled stout. But after being reprimanded severely for his indiscretion, he faithfully adhered to the prescribed form of dietary." The results were, as I have previously shown, extremely satisfactory.

You have already heard how much stress that distinguished physician M. Piorry lays upon abstinence from drink, which he evidently considered an important element in the success of his treatment. I think it may fairly be said that, according to the evidence yet adduced, the saccharine treatment of glucosuria is only beneficial when the quantity of fluid given to the patient is limited.

One advantage of this plan is that it suits sometimes when the old method by interdicting the use of amylaceous and saccharine substances fails. This occurred in the cases under the care of Dr. Budd and Dr. Corfe. It has long been known that abstinence from starch and sugar affords relief, as is shown in the case of Elizabeth Lawrence, whose bran biscuits contain no starch; and the only article of food she consumes which contains sugar is the milk, and that she has to-day discontinued. Lawrence, I may state, finds her biscuits by no means disagreeable, and she continues to eat them with the same relish she had for them from the first.

Much has yet to be learned concerning the mode of using sugar in glucosuria; and I would beg with great deference to submit that in future observations it would be advisable not to interfere with the action of this agent by the simultaneous administration of other remedies; and, for the reasons mentioned in my paper on Glycogenesis (JOURNAL, May 8th, p. 368), substances containing glucose, such as honey and fruits, should be given in preference to those containing cane-sugar; and the glucose should be given in moderate quantities at a time and frequently, rather than in large quantities at long intervals.

ST. GEORGE'S HOSPITAL.

CASES FROM THE MEDICAL WARDS.

THE five cases which follow are connected together by one circumstance; viz., that in all of them the prominent symptom was vomiting, except in the second, where the disease of the stomach was latent. They are adduced as good examples taken from a very short period in the practice of one hospital, of the various conditions under which the stomach may be affected and the various symptoms to which such affection may give rise. In the first case, hard cancer situated at the pyloric end of the stomach produced its usual consequences, arising apparently only from the mechanical impediment offered to the escape of the aliment into the intestines, and the consequent impairment of nutrition; the stomach becoming enormously distended, its contents fermenting and being periodically rejected, and the patient dying at length of inanition. The effect of the sulphite of soda in causing the disappearance of the sarcinæ will be noticed. In the second case, in contrast to the above, the same disease, quite as far advanced, but situated at the opposite part of the stomach, produced no symptoms whatever; and the patient died, apparently from the malignant cachexia rather than from any visceral affection. It will be noticed as a singular circumstance, that the bladder was affected in almost the same way as the stomach; a deposit of hard cancer being found amongst its muscular fibres, but in a situation which did not prevent the partial expansion of that viscus, and therefore seems to have been accompanied by few or no symptoms. It is probable, however, that the discharge of blood which occurred shortly before death proceeded from congestion of the surface of this tumour; and if so, symptoms of disease of the bladder would not have been long absent. In the third case (which was also a very obscure one), the vomiting was also produced by malignant disease, compressing, however, not the immediate orifice of the stomach itself, but the duodenum, which is, for such purposes, almost a part of the stomach—not, however, to such an extent as not to allow some passage for the products of digestion, though an insufficient one. It was conjectured that, in this case, glandular affection was the primary disease, and that that in the liver and lungs was a more recent formation. The case illustrates also the difficulty of discovering malignant disease of the lungs when in an early stage. In the last two cases, hæmatemesis was the leading symptom, but obviously from different causes. In the former of the two, no difficulty was experienced in fixing on the liver as the original source of the mischief, as the whole history of the case pointed to that viscus; but in the latter it was not quite so easy to arrive at a diagnosis. Two causes were at hand to account for the hæmorrhage, viz., either that it proceeded from ulceration of a considerable surface of the stomach, or that the blood had flowed into that viscus from an aneurismal communication with the aorta. The latter would have been selected as the more probable of the two hypotheses, had it not been for the fact that there was no very decided dysphagia, as there ought to have been from a tumour pressing on the diaphragm. This, however, was explained at the *post mortem* examination, by the fact that the disease was not the common form of aneurism, in which a large tumour is formed, and then bursts into the neighbouring parts; but rather an ulcerated opening between the two tubes, hardly accompanied by anything worthy of the name of a tumour. The disease appeared to have commenced in the artery, by a morbid action in its internal and middle coats. The products of inflammation were seen on the serous lining of the aorta, in the form of deposits of fibrine, and thickening of a pseudo-membranous nature, quite distinct from the ordinary atheromatous deposit which also existed; and it appeared to be from the ulceration consequent on this inflammatory action that the perforation of the artery had resulted. It was surprising, seeing the very large size of the orifices in the aorta and diaphragm, and the directness of their communication, that death had not resulted instantaneously.

CASE I. *Malignant Disease of the Pylorus.* (Under the care of H. W. Fuller, M.D.) James W., aged 46, was admitted on April 7th, under the care of Dr. Fuller. He had been ill for four months, at first with pain in the chest, which he thought was rheumatic. This pain, however, presently became fixed at the epigastrium, and was attended with nausea afterwards. A month later, he vomited clear liquid occasionally. When admitted, he used to vomit a yeasty-looking fluid after each meal. There was some tenderness below the ensiform cartilage, but no hardness could be detected. The stomach-resonance was found over a very large space. The man was pallid and much emaciated. The bowels were costive; the skin cool; the pulse weak and frequent. The urine was clear, and free from albumen. He was treated with bismuth, calumba, soda, and magnesia, in a powder, three times a day, and laxative medicines; and derived so much relief from these measures, that he was able to retain his food for about two hours; but otherwise the vomiting persisted. Sarcinæ were found in the vomit: after this discovery, sulphite of soda was administered; and the sarcinæ soon disappeared. He now became troubled with hacking cough, for which antiphlogistic remedies were used with success; but the vomiting became worse, and was not relieved by any remedies; and he died of exhaustion on May 3rd.

On *post mortem* examination, the lungs showed traces of bronchitis; otherwise there was no disease of any organ except the stomach. This was enormously distended, reaching up as high as the fifth rib on the left side, and down to within two fingers' breadth of the os pubis. It contained a great quantity of brackish grumous fluid, in which no sarcinæ were found on microscopical examination. Its structure generally was healthy. At the pyloric end was an annular deposit of hard cancer (exhibiting numerous cells, of different sizes and shapes, under the microscope), extending for a distance of about half an inch,

and being about half an inch thick. The orifice was extremely contracted. The other viscera were tolerably natural.

Case II. *Malignant Disease of the Cardiac End of the Stomach.* (Under the care of W. E. Page, M.D.) Mary M., aged 28, was admitted on April 14th, under the care of Dr. Page, on account of œdema of the legs, swelling of the belly, and pain in the chest. Her complexion was sallow, and features sunken. She had been losing flesh latterly, and had taken to her bed for the last three weeks. On examination, there was found to be full expansion of the chest; the heart's impulse was increased, and its action was free from murmur. The urine was loaded with lithates, but contained no albumen. She was ordered a diuretic mixture and nitre in decoction of broom, and a purge. She now began to complain of severe pain in the right side of the abdomen, and of pain during micturition. On the 20th, she began to complain of cough and dyspnœa, and expectorated a good deal of muco-purulent matter. There was some dulness under the left clavicle, with loud expiration and bronchial *râles*. The legs were less œdematous; but there was swelling, with distinct fluctuation, in the abdomen, accompanied by pain, which fomentation did not much relieve. In the beginning of May, she began to sink; the cough became worse, the sputa more puriform. On May 6th, she complained of great pain in the left groin. This was followed on the 7th by the discharge of (as was asserted) three-quarters of a pint of blood *per vaginam*. She became rapidly worse, and sank on the 8th.

On *post mortem* examination, there was found slight anasarca of the lower extremities. The heart was small, but healthy. The lungs were very small and light, the separation between the lobules being much more distinct than usual. On the right side was a small pendulous portion of the pulmonary substance attached to the lung by a fold of pleura more than an inch long, in which its vessels were conveyed. No disease of the substance of the lung was found. The peritoneal cavity was distended by clear serum. The peritoneum was not thickened, and presented no trace of inflammation, but the liver and spleen were adherent to the viscera in their neighbourhood by old false membranes. The stomach was contracted at its cardiac end, and its coats were greatly thickened for the extent of about two inches, commencing about an inch from the cardia. This part was about four times the thickness of the rest of the stomach. On cutting it, it was of a uniform colour, and felt very gristly. Microscopic examination showed numerous round nucleated cells of large size, and others of an elongated shape, lying in the meshes of the muscular fibres, which seemed much increased in quantity, The mucous membrane of the stomach looked quite healthy. The bladder was contracted; its upper portion presented a very similar appearance to that already described in the stomach, being greatly thickened, of a gristly hardness, and displaying similar cells to those already mentioned lying amongst the muscular fibres. This thickening involved only the upper portion of the bladder in front of the reflexion of the peritoneum. The mucous membrane seemed quite healthy. The ovaries were converted into a mass of disease on both sides, their natural structure being quite gone. The diseased mass was of a similar character on both sides, but larger on the right, where it formed a tumour about as large as an orange. The other was about half that size. Both were quite loose in the cavity of the pelvis, and had produced no inflammation. They consisted partly of a large cyst, with other smaller ones in its walls, all containing clear serum, and partly of a mass of soft gelatinous matter, mixed with encephaloid substances, in which very large cells, with one or more nuclei, were found in great numbers on microscopical examination.

Case III. *Vomiting from Malignant Disease in the Lumbar Glands pressing on the Duodenum.* (Under the care of H. W. Fuller, M.D.) Christopher H., aged 50, was admitted under Dr. Fuller's care on February 10th. He was a painter, and had been under medical care for five or six months with sickness after meals, and pain at the epigastrium. He had suffered twice from colic; for the last time in 1849. There was a faint blue line on the gums; he complained of cough and pain in the loins, and said that his bowels were apt to be costive without physic. The urine was clear, copious, and free from albumen: the tongue covered with a white fur; the pulse weak. There was no tumour perceptible externally. He was ordered three minims of creasote thrice a-day, and sinapisms to the epigastrium. Aromatic bitters and several forms of iron were also tried. On examining the chest after he had been for some few days in the house, the respiration was found harsh at both apices, but there were no moist sounds, nor was there any dulness on percussion. The vomiting, which was of food only, continued unchecked, and he was ordered ten minims of digitalis in haustus quinæ, and then hydrocyanic acid mixture, with a good allowance of brandy. The cough was very harassing, especially at night. This state of things lasted all through the month of March, the man gradually getting worse. The chest was again examined in the early part of April, but no fresh sounds were detected. The sickness and pain in the loins were now increased in severity, and he died on the 6th of April.

On examining the body, turbid serum was found in the pleural cavity on the left side, and both lungs were smeared with lymph. Scattered throughout the lungs was a copious deposit of what seemed at first sight miliary tubercle, but which, on microscopic examination, appeared to be of the same nature as the malignant deposit found in other parts of the body. In some parts this deposit was aggregated into larger masses, which then presented more distinctly the external characters of malignant disease.

The stomach was much distended, apparently from pressure on the duodenum, as its own structure was quite healthy. The duodenum was raised up, and its second portion considerably compressed by a large mass of malignant disease of a whitish colour, lobulated appearance, and firm consistence, which lay in front of the spine from one end of the lumbar region to the other. This mass consisted principally of rounded separate lobules, which looked like glands affected with hard encephaloid disease. Under the microscope it showed very distinctly the character of cancerous affection. The aorta and vena cava were raised up by it, and several of their large branches ran directly through it. None, however, were affected, or even obviously compressed, by the disease. The bones of the spine were unaffected. The viscera displaced by the tumour (viz., duodenum, pancreas, kidneys, and suprarenal capsules) were quite free from malignant disease. The liver was rather enlarged, weighing four pounds three ounces. It contained, scattered through its substance which was otherwise healthy, numerous deposits of encephaloid matter, none of them of large size, corresponding in microscopic characters to the deposit in other parts. The other organs presented nothing remarkable.

Case IV. *Hæmatemesis from Disease of the Liver.* (Under the care of H. A. Pitman, M.D.) John W., aged 45, a pensioner, was admitted on March 3rd on account of hæmatemesis. He was pale and blanched from loss of blood. A year ago he had had jaundice, and then threw up a large quantity of blood, but felt no inconvenience afterwards till seventeen days before his admission, when the vomiting returned, and was followed by swelling of the legs. It seemed that in 1845 he had had a bad attack of dysentery at Corfu. In 1852 his liver had been "out of order", and he was jaundiced. On admission, there was slight œdema of the legs; the belly was tense, and fluctuation very marked: no tenderness was complained of when pressure was made. The urine was perfectly natural. On March 11, he had pain in the right hypochondrium, which shifted, a week later, to the epigastrium. On the evening of the 18th he vomited blood; and this relieved the epigastric uneasiness. He had all along been taking a turpentine mixture. This was afterwards changed for gallic acid, which, however, was less useful in checking the hæmorrhage than the turpentine. On March 25, it is noted that the ascites had increased and occasioned dyspnœa, which henceforth became one of his most distressing symptoms. During April his appetite failed, and he suffered a great deal at different times from nausea, and occasionally vomited a little blood. The dropsy increasing, diuretic medicines were given, and he was purged with gamboge; but these remedies only controlled it temporarily, and in the early part of May the skin of the legs gave way at several points. There was great depression of the countenance, and uneasiness at the pit of the stomach. He was soon unable to take any nourishment, and died of asthenia on May 9th.

On *post mortem* examination, the thoracic viscera were found healthy. The peritoneal cavity contained a large quantity of clear serum. The stomach was full of partially clotted blood, but its structure seemed quite healthy.

The liver was large, reaching over to the left side of the body. Its colour was of a pale yellow; the lobules were separated by a quantity of fibrous tissue, and appeared in the section as separate granules; the surface was hobnailed. There was no obstruction of the ducts. The kidneys were pale, large, smooth, and mottled on their surface.

Case V. *Hæmatemesis from Aneurism communicating with the Œsophagus.* (Under the care of H. W. Fuller, M.D.)

Samuel N., aged 30, a porter, was admitted under Dr. Fuller's care on May 5. He was complaining of pain in the shoulders and at the epigastrium, apparently in a fixed spot. There was some tenderness on pressure there, and the pain was worse after taking food. He complained of not being able to swallow anything without washing it down with drink. These symptoms had existed for about three months. The day before his admission he had vomited half-a-pint of blood. There was no aneurismal bruit in the chest. The painful spot was covered with a sinapism; the bowels, which had been very costive, were opened with senna, and then a mixture containing dilute acid with sulphate of magnesia and infusion of roses was given every six hours. Some blood, but no very great quantity, was brought up during the night. Gallic acid and opium were given the next night, and repeated two or three times during May 8th, in addition to a turpentine mixture. About four P.M. on the 8th, he threw up more than half-a-pint of blood, and soon sank from suffocation, as it appeared, caused by inability to dislodge more of it.

On *post mortem* examination the body was seen to be in good condition. There was a large perforation in the œsophagus, close to the bifurcation of the trachea, with smooth rounded edges, partly filled up by clot, which appeared of old standing. The œsophagus itself was otherwise healthy. This opening was immediately opposite to an equally large opening in the arch of the aorta, just below the exit of its three branches. A small sac had been formed in the cellular tissue between the two tubes, not much larger than a chesnut; also filled with loose clot. The left bronchus passed through this, but no communication was formed with the air tube. The heart was healthy. The aorta was studded with atheromatous deposit, and the inner coat was elevated in many places and thickened. Here and there small patches of fibrine projected from the lining membrane of the artery. Just below the opening of the aneurism, a space existed, in which the inner, and apparently part of the middle coat of the vessel had been removed, leaving the yellow elastic fibres bare. The trachea and bronchi were stained with blood, and numerous extravasations existed in many parts of the left lung, but (as already stated) no communication was formed with any part of the air tube. The stomach was distended by an enormous soft clot of blood. It was otherwise healthy.

Original Communications.

ON DISEASES OF JOINTS.

By Holmes Coote, Esq., F.R.S.C., Assistant-Surgeon to St. Bartholomew's Hospital, and to the Royal Orthopædic Hospital, etc.

VI. THE ANKLE-JOINT.

[*Continued from page* 349.]

The deformity called talipes valgus, or flat foot, must be distinguished from simple sinking of the inner ankle and eversion of the foot, consequent upon yielding of the internal lateral ligament. The arch of the foot, which in the former affection is lost, is here retained, and the only treatment usually necessary consists in the application of a boot with outside iron upon which straps act to draw the weakened ankle to its proper shape. In course of time, parts acquire sufficient firmness for the discontinuance of mechanical support.

Talipes valgus, or flat foot, involves a much more serious amount of deformity, and is attended with great stiffness and rigidity of the limb. The arch of the foot is lost in the antero-posterior direction, owing to the sinking of the astragalus from the cup-like cavity formed by the os calcis, the calcaneo-scaphoid ligament, and the os scaphoides, into which the head of the bone is in the normal state received; and in the transverse direction, owing to the yielding and stretching of the ligaments connecting the scaphoid, cuboid, and cuneiform bones. The lateral ligaments are affected secondarily, so that the external malleolus becomes approximated to the outer side of the os calcis.

The amount of pain and inconvenience which patients thus afflicted suffer is far greater than commonly supposed. It is true, they may in some instances manage to shuffle many miles over the smooth paved streets of London, but they have quite lost the elastic spring, or the adaptive power of the foot, by which one is enabled to travel over uneven and rugged places, or to save oneself from falling. But the sinking of the arch of the foot is in itself a very painful process. Patients cannot stand long at a time, and they bitterly complain of a constant aching just in the situation of the elastic calcaneo-scaphoid ligament.

In December 1848, I saw a case in St. Bartholomew's Hospital, under the care of one of my colleagues, of a lad, the subject of talipes valgus, who, falling from a considerable height upon the feet, fractured the right astragalus. The case did well, under proper treatment; but the nature of the accident illustrated the fact, that the weight of the body would be transmitted directly by the tibia to this bone of the tarsus, as it came to the ground.

In flat foot, the muscles are often in a remarkable state of spasm. I saw a little girl, who might have seemed to a casual observer to be suffering from talipes varus, for she walked on the outer side of the feet. When put on a sofa, however, the muscles became quieter, and the real nature of the deformity was apparent. The explanation of the case was easy. The child suffered constant pain from the sinking of the astragalus whenever she stood upright; for the weight of the body pressed on the elastic calcaneo-scaphoid ligament. To rectify this, the anterior and posterior tibial muscles were thrown into a state of spasm, by which the inner border of the foot was raised, while the flexor muscles produced antero-posterior contraction of the tarsus, with flexing of the toes. The same condition of general spasms is often seen when the two peronei muscles are morbidly tense. Rest of the limb becomes important as an element of diagnosis; for, by quieting the muscles generally, those tendons which are permanently tense become easily distinguished from the rest.

W. R. Adams, in the *Dublin Journal of Medical Science*, vol. xix, 1841, relates the particulars of a case of flat foot in a female aged 60, dissected by Mr. Smith. The ankle and the tarsal joints were remarkably stiff and rigid; and, upon the removal of the soft parts, bony vegetations were seen springing from the articular margins of all the tarsal bones. The direction of the long axis of the os calcis was more horizontal than natural; but the astragalus, the os scaphoides, and the calcaneo-scaphoid ligament, were changed more than any other structure in the foot. The long axis of the astragalus was horizontal; from the upper surface of this bone arose an osseous growth, which extended half an inch in front of the fibula, so that the ankle joint was nearly as immoveable as by osseous anchylosis. This immobility of the ankle appeared to be compensated for by increased mobility of the tarsal joints. The head of the astragalus was large, and the concavity formed for its reception by the os scaphoides was greatly enlarged. The calcaneo-scaphoid ligament, which in its normal state supports the under surface of the head and the neck of the astragalus, was in this case ossified and converted into a large crescentic bone (a new sesamoid bone), nearly an inch in its long diameter, serving by its under surface for attachment to the tibialis posticus, and by its upper surface forming, with the concavity of the os scaphoides, a large articular surface, as big as and of similar shape to the glenoid cavity of the scapula. The narrowest point of the ovoid was directed downwards inwards, and this corresponded with the remarkable prominence on the inner side of the sole of the foot noticed in all cases of flat foot. The other bones exhibited no abnormity, excepting the numerous exostoses at the line of separation of the different bones.

The tendons which require division in severe cases of this deformity are those of the peronei and the extensor communis digitorum. "In congenital cases," observes Mr. Tamplin, "as far as my observation goes, the measure is invariably necessary, although the deformity may be slight, and the foot is easily brought into and held in position." The moment the feet are released from the instrument, the deformity returns, even after a period of twelve to eighteen months. But subsequent division of the peronei and the common extensor of the toes is speedily followed by a cure of the deformity, and removal of all tendency to contraction.

In severe congenital cases, when the deformity has been allowed to exist for years without any attempt being made to relieve it, every muscle surrounding the joints is contracted. The following case is interesting. "A patient, fifteen years of age, was born with this deformity in both feet, and, about two years since, was operated upon and treated mechanically, without relief. The patient was wholly unable to walk, from the great pain occasioned when the feet were subjected to the weight of the body. Upon attempting to adduct the feet, the peronei and common extensor were rendered ex-

tremely tense; upon attempting to flex the foot, the tendo Achillis was also tense; and, upon an attempt to depress them, the anterior tibial and extensor proprius pollicis were also tense, there being the smallest possible amount of motion in the joint, and that of an unyielding character. I therefore proposed the division of the tendons of the whole of these muscles, as the only prospect of relief, which was assented to. I first divided the peroneus longus and brevis; then the extensor communis digitorum and peroneus tertius; afterwards, the anterior tibial and extensor proprius pollicis; and lastly, the tendo Achillis. Lint and bandages were applied, and allowed to remain on a week, the patient having suffered no pain beyond that immediately following the operation. At the end of that time, I applied one of Scarpa's shoes, and flexed and extended the foot alternately night and morning, so that the uniting medium of each tendon might be acted upon, the foot being adducted the whole time. At the end of three weeks, the motion of the joint was restored perfectly, and the patient possessed the power of flexing and extending it at will." (Tamplin, *On Deformities*, p. 77.)

The mechanical treatment of talipes valgus consists in gradually adducting and depressing the foot at the same time that the arch is supported, so that the new uniting medium becomes stretched while the bones of the foot forming the arch are pressed into the normal position. The usual practice at the Royal Orthopædic Hospital is to apply first a splint reaching from below the knee to the inner ankle, with a spring attached to its extremity, to extend the length of the foot; the spring having a soft pad attached directly opposite and rather beneath the os scaphoides. By this instrument, the arch of the foot may, with proper bandaging, be restored, with great comfort to the feelings of the patient. The arch of the foot having once been raised, the flexion of the foot may be commenced by Scarpa's shoe. Finally, the patient should be supplied with a boot with an outside iron support, and a pad in the interior corresponding with the arch of the foot, that the patient may take exercise with safety, at the same time that the ligaments are gaining strength.

[*To be continued.*]

APPLICATION OF BELLADONNA AS AN ANTILACTESCENT.

By WILLIAM NEWMAN, Esq., Fulbeck, near Grantham.

SEVERAL papers have appeared within the last two years in the columns of the BRITISH MEDICAL JOURNAL, advocating the employment of belladonna in cases where lacteal abscess is threatened; and also in instances where other causes render it advisable to check any further secretion of milk.

In one of these cases, supplied by Mr. J. Burrows, in the JOURNAL of March 28th, 1857, the belladonna was used in conjunction with other remedies; and the value of the case, as a proof of the efficacy of the drug, is thereby impaired. Another mention from the Westminster Hospital, in the JOURNAL of April 4th, 1857, refers simply to its use in threatened lacteal abscess. I am not aware that any notice exists defining the separate classes of cases in which the remedy may be available; and this deficiency I would attempt, though most imperfectly, to supply.

I have had reason to regard belladonna as an antilactescent, and have resorted to it as such.

1. In cases where suppression of the secretion is advisable; *e.g.*,
   (*a*) Where the child has been stillborn, or has died in the first few days after birth.
   (*b*) Where it is desirable to wean the child even suddenly, the flow of milk still remaining unabated.
2. In cases where engorgement of the gland has occurred, and lacteal abscess is threatening; *e.g.*,
   (*a*) Where, from existence of flat nipples, injury to the breast from prior abscess, or from deficient secretion of milk, the mother is, after some short and futile attempt at suckling, obliged to desist; here the gland, though not called into prolonged exercise, is yet excited, and its liability to inflammation thereby increased.
   (*b*) Where the mother has suckled, and is continuing to suckle her child; but in whom, from some accidental cause or other, congestion of the breast has been set up.

I have resorted to belladonna in more than a dozen cases—comprising instances of each one of the classes I have so hastily sketched, and have not been disappointed in any of them. The cessation of the secretion, or the resolution of the engorgement, has very shortly followed the application. The drug has been solely trusted in; and I have not in any case given the routine doses of calomel, salts, etc., often resorted to in similar instances; indeed, no medicine whatever was exhibited.

I have employed the extract softened with nearly an equal part of glycerine; and have applied this in a ring round the breast external to the areola. It has rarely been required for more than twenty-four hours.

How far it may be possible to check the secretion of milk in one breast on account of threatened abscess, allowing the child at the same time to continue sucking the other one, I am quite uncertain. No case of the kind has as yet occurred to me; but I should fear the influence of the belladonna upon the child. No inconvenience has resulted to the mother in the above cases, save that in one instance there was dilatation of the pupils with intolerance of light for a short time.

I would simply draw attention, in closing this short notice, to the great comfort and advantage of supporting the breast in any of the states I have referred to. A handkerchief placed under the gland, with its ends tied round the neck, appears to have more in its favour than the employment of strips of bandage or of adhesive plaster.

Transactions of Branches.

BATH AND BRISTOL BRANCH.

ON ULCERATION OF THE OS UTERI.

By J. G. SWAYNE, M.D., Physician-Accoucheur to the Bristol General Hospital, and Lecturer on Midwifery at the Bristol Medical School.

[*Read April 29th.*]

FOR some years past, the subject of ulceration of the os uteri has received much attention, and has excited no small amount of acrimonious discussion amongst those who especially study diseases of the uterine system. Nevertheless, most contradictory opinions are still held as to the frequency and importance of this ailment; and, as individual experience of any kind is useful in testing the relative value of those opinions, I propose giving the results of my own observations in a certain number of cases, exhibiting illustrations of the best marked instances. The cases have been chiefly collected and the drawings made, during the last two years, from patients under my care at the Bristol General Hospital, and will show in some measure the frequency of simple ulceration of the os uteri, as compared with other organic diseases of that organ. Out of 120 cases of organic uterine diseases, which it was necessary to examine by the touch and speculum, there were 31 of simple non-malignant inflammation and ulceration of the os uteri; in 23 of these, there was distinct and well marked ulceration; in the remaining 9, there were merely superficial inflammation and enlargement, or an inflamed and granular condition of the mucous membrane of the part. In 57, or nearly half of the 120 cases, the uterus was prolapsed, or otherwise displaced; in 9, there were fibrous tumours, polypi, and other non-malignant growths; in 7, there was carcinoma; and in 16, various other affections not belonging to either of these classes. Hence we find that there was simple non-malignant ulceration of the os uteri in 23 out of 120 cases, or rather more than one-sixth of the whole; thus showing that this affection is, next to displacement of the uterus, the most frequent of the organic diseases. However, the disease would not appear, from my own statistics, to be so common as it would from those of Dr. Bennet, who found 222 cases of uterine ulceration in 300 which he examined—*i. e.*, nearly three-quarters of the whole; or even from those of Dr. West, who found 125 cases in 268—*i. e.*, nearly half. Yet, on the other hand, some practitioners of great experience and acuteness of observation affirm that they have never, either in the living or dead body, seen ulceration of the os and cervix uteri, except of a specific character, such as syphilitic, scrofulous, or cancerous.

The only way in which we can account for so great a discrepancy of opinion as to a matter of fact, is by supposing that observers of so opposite a character attach a different meaning to the term "ulceration". Such appears to be the case. The lesions which are considered to be ulcers by one class of observers are so superficial in character that they are not con-

sidered to be *bonâ fide* ulcers by the other class. By far the majority of the ulcers which we ordinarily meet with on the os uteri are of this superficial character. The epithelium covering the os is the only tissue which presents a distinct solution of continuity. This layer being wanting, leaves a surface exposed which answers to the definition Sir A. Cooper gives of an ulcer, viz., "a granulating surface secreting matter". To use Dr. H. Bennet's words, "By ulceration I mean the results of destructive inflammation, characterised by the destruction of the epithelium, and the exposure of a pus-secreting surface." "The characters of the ulceration vary from those of a mere abrasion to those of a bleeding, fungous, foul looking sore."

The most common form of superficial ulceration has been thus minutely described by Dr. Tyler Smith: "When the epithelium has been removed in the living subject by diseased conditions, the mucous surface is of an intensely red colour, from the presence of the naked villi, with their vascular loops; and it conveys an impression of roughness and denudation upon examination by the speculum. To the touch, the abraded surface feels erectile and 'velvety'—a term which has been very commonly applied to what has been considered ulceration of the cervix and os uteri. The villi do indeed, in this condition, stand out something like the pile of velvet; and in some cases the villi themselves are considerably enlarged. In other cases, there is not merely the loss of the clean epithelium, but the villi both of the external surface of the os uteri, and of the mucous surface within the labia uteri, are destroyed in patches. In that condition of the os uteri which, upon examination after death, would be pronounced to be undoubted superficial ulceration, the state which generally obtains is partial or entire loss of the epithelial layer in circumscribed patches, and here and there the loss or partial destruction of the villi. This gives an eaten corroded appearance to the mucous surface. Such a condition of the os may be limited in extent, or it may spread over the whole of the os and external cervix, and pass within the labia uteri."

Such are the usual characteristics of uterine ulceration; but there are also certain conditions of the os uteri which frequently precede it, and ought therefore to be first briefly considered—such as congestion, and various forms of inflammation. Congestion of the os uteri may be partial, affecting only one side or one lip. When such is the case, the congestion is generally produced by uterine displacement, such as the different flexions of the organ. I have seen some of the most marked instances of this kind in cases of retroflexion. Here the posterior lip of the cervix becomes much enlarged and congested, apparently in consequence of the obstruction which the bend in the uterus offers to the return of blood from the part. Such appearances are shown in the drawings which I now exhibit; and occasionally the congestion gives place to ulceration of the posterior lip, as represented in one of them.

Inflammation of the os uteri may be very superficial in its character, and most frequently assumes the granular form. A large patch of vivid redness is seen, surrounding the os tincæ, and studded with numerous little semi-transparent granules, about the size of mustard-seeds. These are probably muciparous follicles. Such a condition may very readily pass on into the form of superficial ulceration; and this may take place so gradually that it is difficult sometimes to distinguish one from the other: in fact, some practitioners believe that the so-called ulcerations of the cervix are nearly always inflammatory patches of this kind. Dr. Meigs of Philadelphia holds this opinion, and believes that actual ulceration of the womb is a very rare disorder. When, however, ulceration is present, the margin of the sore is much more sharp and well defined than that of an inflammatory patch. Should there be any doubt on the subject, it may be removed by the test proposed by Dr. Bennet. This consists in lightly touching the suspected surface with nitrate of silver. "The abrasion immediately assumes a much whiter hue than the region which is merely congested, and its margin becomes well defined and evident." Such abrasions are, according to my observations, the most ordinary form of uterine ulceration. They usually surround the os, spreading more, however, on the posterior than the anterior lip. They appear to be quite as superficial as a sore on the mucous membrane of the mouth or tongue: for instance, when the epithelium is removed by a scald. The uterine sore or "raw", when once established, is, however, more indolent in its character. A red irritable surface is exposed, which bleeds readily when touched, assumes a granular appearance, and is very apt to rise above the level of the surrounding mucous membrane. The granulations become exuberant, resembling what is called "proud flesh" in other parts. Such an ulcer assumes a more vivid red colour when compressed by the end of a tubular speculum; and, on the contrary, would lose much of its colour after death, and would be readily overlooked. This is the only way in which I can account for the conclusions which some have arrived at from a number of *post mortem* examinations, as to the extreme rarity of uterine ulcerations—conclusions, however, which are negatived by the careful observations of Dr. West, who discovered ulceration in as many as 17 out of 62 uteri which he examined in women who had died from various other diseases.

The margin of the mucous membrane surrounding an ulcer on the os uteri usually presents a blueish or livid hue, as if from passive or venous congestion, very like what we often see around indolent ulcers of other parts. This livid hue is most marked in that description of ulcer which is called by Dr. E. Kennedy the "cockscomb granulation". "It generally engages the immediate margin of the os, consisting of larger sprouting papillous granulations, with or without intervening fissures dividing them into lobulated portions. The lobes, when present, appear to dip a good way into the cavity of the uterus."

Ulceration of the uterus, when of some standing, is apt to produce more or less engorgement, enlargement, and ultimately induration and hypertrophy of the uterine neck. As a general rule, these results are more marked in women who have borne children than in those who have not. In such persons, the os uteri is often irregular in shape, and this irregularity is much heightened by the morbid conditions of which we have just spoken. When the ulceration is deeper than usual, this appearance is very marked, so that the indurated cervix appears to be divided into lobes, and the disease might readily be confounded with cancer. There is a ready method of establishing a diagnosis, which has been pointed out by Dr. Bennet. "When the lobular, knotty, irregular condition of the cervix, is simply inflammatory, the fissures which separate the lobes radiate round the cavity of the os as a centre (which is not the case in a cancerous tumour), each separate lobe being perfectly smooth in itself, and free from tubercles or superficial inequalities."

I have not much time to enter on the causes of ulceration of the os uteri; medical men are pretty well agreed upon them, and they are well known. Out of the 31 cases of inflamed, granular, and ulcerated os uteri in my list, 27 occurred in married women, 6 of whom had borne one child only, whilst the rest had had children in number from two to sixteen. Two cases only of ulceration occurred in married woman who had not borne children; and two in single women, one of whom was a virgin. This, I think, will prove that these complaints are very much connected with child-bearing. From inquiries which I have made, I am led to conclude that they most frequently arise from miscarriages, especially when the patient has gone about and exerted herself too soon afterwards. Sometimes, however, they have appeared to date from a difficult labour. Excessive sexual intercourse, although it undoubtedly aggravates uterine ulceration, does not often appear to produce it. I have seen very few cases of it in prostitutes.

With regard to the symptoms and pathological importance of uterine ulceration, some consider the disease a comparatively trifling one, whilst others ascribe to it nearly all the ills that feminine flesh is heir to. The most constant symptom, according to my own observations, is pain felt in the centre of the pelvis, or in the sacral region, and very frequently in the lower part of the abdomen, either just over the pubis, or in one or other iliac fossa. This pain is increased at the menstrual periods, and by standing or walking; also by sexual intercourse and defæcation; and sometimes there is painful micturition. The pain is usually dull and aching, but sometimes is of a burning character. The uterine irritation is very apt to cause pain in the nerves of other parts; and a very common symptom is pain or numbness extending down one or both sciatic nerves. Tic douleureux is not uncommonly occasioned by it. The stomach is also apt to sympathise with the uterus, and various forms of dyspepsia are the result in some cases. There is nearly always vaginal discharge of mucus or mucopurulent matter. The discharge is generally yellower than that of ordinary leucorrhœa, and is frequently tinged red or brown from admixture with blood in small quantities. Sometimes lumps of thick reddish mucus will come away, and are compared by the patient to lumps of flesh. When a leucorrhœa is very obstinate, and the discharge is occasionally reddish or brownish, I always suspect ulceration, and propose an examination with the speculum. The system in general is more or less affected by the continuance of uterine ulceration. Derangements of the digestive organs, and disorders of the nervous system, such as various forms of neuralgia and hysteria, are apt to arise. I cannot say, however, that I have noticed any of

the grave results which some have attributed to it; viz., sterility; frequent miscarriages; severe uterine pain and hæmorrhages during pregnancy; non-dilatation of the cervix during labour; hæmorrhage and puerperal metritis after labour; etc. In several of my cases, the ulceration was attributed in the first place to a miscarriage, but in none can I find that a miscarriage resulted from the ulceration. In two cases, the women became pregnant whilst under treatment for ulceration, arrived at the full time, and were safely delivered. So that my own experience, so far as it goes, leads me to coincide with one of the conclusions which Dr. West states at the end of his *Croonian Lectures;* viz., that "it does not appear that ulceration of the os uteri exerts any special influence either in causing sterility or inducing abortion."

The treatment which I have found most successful in ulceration of the os uteri is very similar to that which would be employed in irritable or indolent ulcers in other parts of the body. In the early or inflammatory stage, rest and gentle aperients are proper, combined with leeching or scarification of the os uteri. After these means have been used, counter-irritation by blisters to the sacrum or hypogastrium may be used, together with cold hip-baths and emollient or sedative injections. I generally prefer either the poppy-head fomentation, or the liquor plumbi diacetatis dilutis. Stronger astringent injections appear to do more harm than good. But when the acute stage is passed, and ulceration has existed for some time, a cure will seldom be effected without employing some kind of caustic. In fact, the ulcer, having become indolent, must be treated in the same way as a similar ulcer in any other part. We cannot apply pressure by means of strapping and bandages, as we do to an ulcer on the leg; but we can employ nitrate of silver or sulphate of copper to stimulate the sore, and keep down exuberant granulations. The former of these is much the best, and may be applied once or twice a week, the frequency of the application depending in some measure on the quantity employed at each time. If, for instance, there is merely an inflamed and granular patch on the os uteri, it should be once lightly pencilled over with the nitrate of silver, so as to produce what Dr. Meigs calls "an antiphlogistic contact of lunar caustic"; that is to say, the caustic should be used in such a way as merely to act as an astringent, and reduce the calibre of the inflamed vessels. This may be done twice a week. If, however, there is well marked ulceration, especially if the granulations are exuberant, the caustic may be used more freely, so as to produce a slight eschar upon the surface. This will separate in a few days, with, occasionally, slight hæmorrhage. The application may be repeated every week. The 23 cases of ulceration in my list were thus treated, and recovered, on an average, after about three months attendance at the hospital. The rapidity of the recovery, however, will depend very much on the previous duration of the disease. Two well marked cases, of which I show drawings, will illustrate my remark. In one, the ulceration had existed three weeks before I saw the patient, and healed after six weeks treatment; in the other, it had existed three years, and required seven months' treatment. I am not in the habit of employing the stronger caustics, such as the potassa fusa, or even the actual cautery, which has been frequently used in the Parisian hospitals. This latter remedy I have not had the hardihood to use in such cases, and have very seldom had recourse to the potassa fusa. When I have done so in simple ulceration of the os uteri, it has appeared to set up so much irritation of its own as to complicate the case and to retard recovery. I cannot see why potassa fusa, or a white-hot iron, should be applied to an ordinary ulcer on the uterus, more than to an ulcer on the leg; nor do I believe they would have been applied, if the sensibility of the os uteri had been anything like that of the leg; for the patient would soon have rebelled against such treatment. Although I can by no means agree with those who think that ulceration of the os uteri requires no local treatment, much less with those who deny its existence, yet I must own that I think their views less mischievous than those of an opposite class of practitioners, who exaggerate (sometimes, I fear, purposely) the importance of the disease, and adopt a mode of treatment which is unduly severe, and in many instances unjustifiable.

The conclusions to which my own experience leads me are:

1. Ulceration of the os uteri is a common disease.
2. It is usually superficial in character.
3. It sets up a certain amount of discharge and local irritation, which is often communicated to other organs.
4. It may last for months, or even years, without producing any very serious results.
5. It requires local treatment similar to that which we use for ulcers in other parts of the body.

Discussion. Mr. Clark, in the main, agreed with the remarks of Dr. Swayne, especially as to the relative frequency of the different kinds of ulceration of the os uteri. He had had the opportunity of seeing a large number of cases of this nature. The malignant cases have been many, the specific but few; while the benign ulcers have proved the great majority, and very numerous. They had chiefly been perceived in married females; and, although the unmarried are by no means exempt, his own experience led him to believe that they are not of such frequent occurrence as some describe; and the statements made, of three or four young females in a family being all thus affected, are difficult to believe. The symptoms described by Dr. Swayne were the most frequent attendants upon this phase of disease; vomiting also was not uncommon. In two cases occurring in his (Mr. Clark's) practice, impregnation did not occur for many years after marriage, the temporary sterility apparently resulting from ulceration of the os uteri, or its concomitants, congestion and chronic inflammation of the cervix: the local affections being removed, pregnancy followed. He could not speak too strongly against the too frequent custom of ascribing nearly all the evils to which females are liable to this one source, and to the indiscriminate use of caustics. He had seen a lady suffering from purpura, having had a hæmorrhagic tendency from early life, and subsequently a sufferer from hæmorrhagia, subjected to the application of caustic to the os uteri for six or nine months, when the disorder was plainly of a constitutional character. He had also visited a patient suffering from cystic disease, the uterus perfectly healthy, who had received the same treatment; and another case of malignant disease of the ovary, also similarly treated. He had seen the cervix destroyed by potassa fusa; abnormal adhesions formed with the parietes of the vagina, causing most distressing neuralgic pains, and likely to occasion great discomfort during life. This catalogue of malpraxis he could lengthen from his own observation: and he could truly say that, in the course of his practice, he had never known any organ in the body so sadly abused, not only severely punished for its own failings, but punished severely for others, with which it had not the slightest relation.

Dr. Herapath could not agree with Dr. Swayne in the opinion that ulceration of the cervix uteri was not a cause of abortion. He had seen many cases in which repeated abortions had been produced by this disease alone; and, until the ulceration had been perfectly cured, no offspring had resulted. He thought that there was no cause for enumerating sterility as the result of simple ulceration of the cervix *per se*. He thought that sterility only arose in such cases when they were accompanied by endocervicitis, and by that resulting peculiar viscid tenacious mucus which issues from the os tincæ in these cases, arising from the increase of the secretion poured out by the Nabothian follicles, and which of course acts like a plug, and prevents conception. He could not conclude without complimenting Dr. Swayne on the beauty and fidelity of his representations of ulceration of the cervix, which were *all most faithful copies*, and vividly brought to his remembrance cases which he had seen in his own practice.

Reviews and Notices.

The Cause of the Coagulation of the Blood: being the Astley Cooper Prize Essay for 1856, with Additional Observations and Experiments; and with an Appendix, showing the Bearings of the Subject on Practical Medicine and Pathology. By Benjamin Ward Richardson, M.D., Licentiate of the Royal College of Physicians of London; Physician to the Royal Infirmary for Diseases of the Chest; etc. pp. 466. London: Churchill. 1858.

[*Concluded from page* 393.]

Dr. Richardson's Appendix consists of comments on the following subjects:—1. Superalkaline Conditions of the Blood in Relation to Disease; 2. Ammonia as an Exhalation from the Body; 3. Experiments shewing the Effects of Lactic Acid on Animal Bodies; 4. Deposition of Fibrine in the Heart and Blood-Vessels during Life; 5. The Alkalies and Acids as Remedial Agents; 6. Application of Ammonia to the Operation of Transfusion of Blood; 7. On some Conditions of the

Blood after Death, in Relation to Medico-Legal Inquiries; 8. Authorities consulted in the Construction of the preceding Essay.

1. *Superalkaline Conditions of the Blood in Relation to Disease.* Dr. Richardson's object is "to point out the possible fact that ammonia or its salts, existing in the blood in excess, may be considered as the cause of the leading and more serious symptoms in certain forms of acute and chronic disease." The observations of Frerichs, Litzmann, and others, have proved that the blood under certain morbid conditions, presenting generally symptoms of a "typhoid" character, contains ammonia in large quantities. Further, in some forms of fever, as yellow fever, the blood is found abnormally fluid, and the red-corpuscles are often altered in shape. All these phenomena Dr. Richardson shews to be entirely in accordance with the effects produced by administering large quantities of alkalies.

2. *Ammonia as an Exhalation from the Body.* In this division, Dr. Richardson relates the result of some experiments made by him, which has been to show that ammonia is normally exhaled by the breath. This fact was several years ago pointed out by a scientific clergyman, the Reverend J. B. Reade; but it has been suffered to fall into comparative oblivion until Dr. Richardson again made the discovery without any knowledge of the labours of Mr. Reade. The author also finds ammonia as an exhalation from the skin and from the serous cavities, under various conditions of health and disease; and he concludes this section by shewing, as a consequence of the facts pointed out by him, the necessity of free ventilation and the isolation of fever patients.

3. *Experiments shewing the Effect of Lactic Acid on Animal Bodies.* The experiments here related were instituted with the general view of observing the action of acids, and lactic acid especially was used—1, because it is a feeble acid; 2, because it is an acid of the tissues; and 3, in consequence of the theory that it is probably the *materies morbi* of acute rheumatic fever. The acid, diluted with water, was injected into the peritoneum of animals. Cats and dogs were the animals operated on; and the results were, in every case, the production of endocardial disease, and sometimes of pain in the limbs. The conditions of heart-disease found are excellently illustrated in three coloured plates. We have not space to narrate the experiments in detail; but we will quote the author's description of the various stages of endocarditis which he has observed in animals.

"From the circumstance that the animals operated on either died, or were killed, at certain different and well marked phases of the disease, an opportunity was afforded of observing, perhaps for the first time, the course of endocarditis through each successive stage. I find from these observations that endocarditis has three well marked periods of progression.

"1. The primary stage is one of congestion and œdema.

"In this stage, the endocardial surface is intensely vascular, approaching in colour to bright vermilion. The membrane has also a soft fleecy character, giving to it a velvety appearance. The curtains of the valves are in a swollen and vascular state, which my colleague Dr. Halford has very appropriately called an 'œdematous condition'. If the swollen valve be pricked with a needle, a clear lymph oozes from the puncture, and the valve collapses..... Occasionally during this stage, if the congestion and œdema is very great, there is a transudation of this lymph through the membrane on to its free or ventricular surface. When this occurs, there is laid at once the basis of a fibrinous deposit from the blood . . . and also a basis for an organised product; the connection between the deposited matter, and the matter effused on beneath the membrane, being direct.

"While these changes are progressing in the curtains of the valves, around their margins small beads are abundantly developed. These primarily are œdematous points also: they yield a clear coagulable lymph when pricked or compressed, and shrink at once after the operation. In this stage the aortic valves are also vascular.

"The general symptoms which mark this stage of the disease are characteristic. There are reduction of the animal temperature, distaste for food, shivering, and then continued feverish excitement, thirst, heat of skin, quick and short inspirations, and rapid sharp pulse. In the first stage, the heart's action is irritable; the first sound becomes muffled, and eventually is lost altogether. This condition marks the time at which the mitral or tricuspid valves are in the swollen or œdematous state; and this circumstance has special interest as proving the fact first experimentally shewn by Dr. Halford, that the first heart-sound is dependent on the tension of the auriculo-ventricular valves. During this stage also, the second sound is sharp and accented. Dr. Halford opines that this sharpness or accentuation of the sound is relative only—that is to say, is brought out more strongly from the loss of the first. To my own ear there is, however, always conveyed an intensity of the second sound; and considering that in all the cases where I could trace out the signs to their pathological origin, the aortic valves were red, and slightly thickened, the intensity here spoken of is accounted for. Lastly, this stage is marked by a short irritable cough, which is not dependent on mischief in the lungs, but is connected with the condition of the heart.

"2. In the second stage of the disease, the pathology is modified. The endocardial surface loses its intense vascularity, but presents points at which the tendinous cords are bound down to it by loose adhesion. The intense redness is shaded down to a pale pink, the membrane superficially being of the pink colour, while beneath it there is a pale film which shades through it. The curtains of the valves remain thickened, but less red. Their surface externally is pink above, while beneath the membrane there is a pale fleecy appearance, evidently from the presence of clear and semi-solid lymph exudation. With a small magnifying power, this is brought out very beautifully..... Sometimes the thickened valve is firmly bound down to the heart-wall by firm exudative bands. In this stage, the beads around the margin of the valves have assumed the same characters and appearances as the curtains of the valves themselves; they are firmer, pink on their external surface, with a curtain of pale exuded lymph as the back ground.

"The symptoms of this stage are equally characteristic. The heart-sounds are modified. The ventricular valves having lost their spongy or œdematous state for one in which their structure is firmer, a sound results from their attempts at closure, but this sound has become a murmur, which varies in intensity. At first it is wavering, dull, and obscure; then soft, and almost musical; next, loud, harsh, and prolonged. Ultimately, if recovery is permitted, it gradually melts with the same series of modifications which introduced it, but in reversed order. The general symptoms are peculiar. The acute febrile condition passes away, and there is an obvious elimination of the poison from the body. The amount of urine passed is far above the normal quantity, and the secretion is strongly acid. The bowels are freely purged, and this secretion is strongly acid. The exhalations emitted from the body of the animal are intolerably sour to the smell.

"3. The pathology of the third stage, or that of resolution, is simple. The vascular character of the membrane externally is removed entirely. The exuded product beneath becomes firmer, and both curtains of valves and beads have for a time considerable firmness, and a pearly whiteness. Later, these parts soften down, as if from absorption of the exuded matter. The curtains of the valves recover their normal characters first; the beads remain longer, and often give rise to a loud musical systolic bruit, which conveys the idea of a much more serious amount of valvular disease than is really presented on inspection.

"In this stage the general symptoms of the disease disappear, and the animal runs about, eats, drinks, and sleeps in every respect in apparent health." (pp. 393-6.)

Dr. Richardson does not, notwithstanding the result of his experiments, consider that these warrant him in asserting that lactic acid is the actual *materies morbi* in rheumatism.

4. *Depositions of Fibrine in the Heart and Blood-Vessels during Life.* The phenomenon of deposition of fibrine within the circulatory system was noticed in Chapter III of the Essay on Coagulation, in speaking of the conditions in which the blood is found after death. In this place, the author, after showing that many of the older writers recognised fibrinous deposits as a cause of death, furnishes a copious summary of the results of his observations, continued through several

years, on the construction and physical characters of fibrinous concretions, the conditions which lead to their deposition, and the symptoms and diagnosis of fibrinous concretions in the heart. Towards the end of the section, Dr. Richardson gives a fair example of the practical utility of knowledge regarding cardiac concretions.

"I am not without hope that the day may come when science shall show to us how the dissolution of these concretions may in some cases be effected; for I have seen them partly dissolved as an effect of alkaline treatment. But, irrespective of this matter, the correct diagnosis of concretion is a guide to prognosis, and is a guide against many forms of meddlesome and mischievous, because useless, practice. Take one or two examples.

"In the later stages of inflammations, bleeding is notoriously bad practice. The reason is obvious; and, I regret to say, I have seen the evil too obviously and practically explained. In these cases, the tendency of the disease is towards fibrinous deposition; and the tendency of hæmorrhage is towards the same event. Therefore, as the practitioner bleeds, the balance of the blood-constituents, already disturbed, is disturbed the more; all that was wanting to secure deposition is secured; the circulation is enfeebled, and the proportion of water and of fibrine is increased. The deposit forms, and the patient sinks. In one instance of pneumonia, I saw the fatal symptoms of concretion on the right side follow the free abstraction of blood, as clearly as the symptoms of narcotism can ever be observed to succeed upon the administration of an opiate.

"For the same reason, in the latter stages of acute inflammatory affections, it is equally dangerous to carry the depressing system by medicines to an extreme, or to produce too free an elimination from the body: of all medicines, in such stages, purgatives and opiates should be alike avoided.

"Lastly, the correct diagnosis of concretion in the heart may prevent unnecessary surgical interference, and explain the reason why some measures, conducted on the most scientific surgical principles, miss their intended object. This is strikingly illustrated in the disease, true inflammatory croup. In this affection, as I have proved by repeated inspections, concretions definitely formed from blood in motion, and long before death, are often found in the heart after death has occurred. Further, I have been able in this disease to trace the symptoms of concretion as clearly as I had previously traced the special local or inflammatory symptoms of the disorder. Thus, in croup, there may be death from one of two sources; from the obstruction in the larynx—asphyxia; from the obstruction in the heart—syncope; or from the combination of these.

"If, then, the symptoms are clearly those of pure asphyxia, dependent obviously on the obstruction in the air-passages, the operation of tracheotomy is the grand remedy. But if the stethoscope tells that the air enters the lungs with moderate freedom at each inspiration; if indicatians of emphysema are present; if the symptoms are those of obstruction at the heart—syncope, then is the operation of tracheotomy as useless as would be that of phlebotomy for removing a solid plug from the windpipe." (pp. 432-4.)

5. *The Alkalies and Acids as Remedial Agents.* This section consists of a series of comments, founded on the observations made in the course of the essay on the effects of alkalies and acids on the blood. The great practical importance of the subject here examined induces us to quote largely from the author's words.

Alkalies. Dr. Richardson finds that there is a great analogy between the pathological effects of alkalies, antimony, many alkaloids, and water thrown into the body in excess. He then says:—

"The application of the alkalies as medicines seems pretty clearly defined. It includes cases of the inflammatory type, where fibrin is in excess, and where there is rapid oxidation. It includes cases where there is acidity of the excretions; and in these respects the alkalies are now specially recommended in acute rheumatism. It includes cases where there is induration of tissue; and, in fine, cases generally, where resolution or fluidity of the blood and plastic tissues are required. As on the dead tissue, so in the living, the alkalies are the solvent or resolvent agents.

"But from this very fact, there arises a caution which I would specially name; viz., that the alkalies as medicines may be carried to a dangerous extent.... As a diagnostic mark that the use of alkalies has been carried far enough, the blood-corpuscles afford the best indices. When these begin to take irregularities of form and character, such as I have already described, the indication is clear that, for the time at least, the remedy had better be discontinued.

"Thus we come back, by physiological argument, to the old established practical fact, based on empirical observation, that the alkalies, the alkaline salts, antimony, opium, and simple water are, in reality, *the* remedies for diseases of the acute inflammatory type, since their effects on the blood are nearly the same in the long run. The points in practice are, to begin their use early in the disease, and not to carry the administration of them too far; and especially not, by an unhappy routine use of the word *fever*, to class cases of an acute inflammatory kind with the true typhus fever group, so as to confound under one head two classes of disease of characters precisely opposite to each other, and to treat them by the same general remedies.

"It is also equally necessary, in studying the pathology of these different diseases, or the pathology arising from the medicinal agents above specified, not to confound simple vascularity of vascular parts, arising from mere fluidity of blood, with those plastic exudations which characterise the pure inflammatory condition. From thus confounding these two opposite pathological states, innumerable fallacies have crept into our science, and a handle has been given to unscrupulous and shallow men, to give to ridiculous dogmas an appearance of scientific meaning....

"Concerning the special use of each of the remedies I have named, in the treatment of acute inflammation, I have no experimental data for argument. I infer that any one of them, judiciously used, would have an equally good effect; while they are alike chemically compatible in combination. In prescribing the alkalies, I prefer, for my own part, the simple thing rather than the salts. Well diluted with water, both simple ammonia, potassa, and soda, are more quickly absorbed, and give their effects more rapidly....

"A word about the stimulant and restorative effects of ammonia is required. Ammonia, as an assumed restorative, is often very injudiciously used. Its use as a stimulant and excitant frequently prompts its application, when it is just the time and case not to prescribe it. In poisoning by opium, I have known ammonia recommended. But the effects of ammonia and opium are, in the main, identical, when given in a large dose.

"In cases where danger arises from the administration of chloroform, I have seen the patient made to breathe ammonia vapour, not as a mere excitant to respiration, (for in this sense it may be used legitimately, with due care), but as a supposed general restorative. As the effects of ammonia in a large dose are, however, the same as those of chloroform in their leading particulars, the free introduction of ammonia into the narcotised patient is the addition of one volatile narcotic to another volatile narcotic.

"In the last stages of low typhus, ammonia is often given freely, though the breath be already ammoniacal, the blood surcharged and entirely liquefied with the alkali, and the blood-corpuscles dissolved. In these cases, no treatment can be more inappropriate. The same applies to the true typhoid sinking of uræmia, and to diseases arising from the introduction of animal poisons, and ending fatally by typhoid symptoms.

"In syncope, the administration of ammonia has long been practised. Here its use is legitimate and invaluable. Acting as an excitant to the heart and respiration, it whips on the circulation, while the blood is supplied with its own normal solvent." (pp. 437-41.)

Acids. Commenting on the therapeutic uses of these agents, Dr. Richardson observes:—

"In true 'typhus' and 'typhoid,' and in all diseases marked by superalkalinity (the typhoid type), the mineral acids are the remedies. I think, in these cases, that hydrochloric acid, from its less fixed character, holds the first place. Of late, in cases of this class, I have given the acid from the first, and with the best success. Pure air, dilute hydrochloric acid, and supporting diet, without any over-dosing with wine, form the tripod of treatment in low fever and its analogues. The point to be remembered in these cases, is the general condition of the blood, not the special manifestation of symptoms, such as the dry tongue, and quick feeble pulse. The diagnostic signs which demand the acid treatment, are the alkaline breath, the partly dissolved blood-corpuscles, and the feeble power of coagulation. In such

cases, the physiological practical argument disposes of all application of the alkalies, the alkaline salts, and the narcotic alkaloids. The elements of treatment are, in fine, reduced to one or two simple axioms. Encourage the elimination of the volatile excreta of the fever-patient, by free and constant ventilation; encourage the healthy oxidation of the body by the same means; meet the alkaline state of blood by the administration of a mineral acid; and supply a diet in which the nitrogenous and carbonaceous elements of food are correctly proportioned, and in which the introduction of alcoholic stimulants takes no excessive share." (pp. 446-7.)

The remaining sections of the Appendix, on the Use of Ammonia in Transfusion, and on Medico-legal Inquiries in Relation to the Blood, we must pass over, merely observing that they are pervaded by the same truly practical tone as those of which we have given an outline.

In concluding this notice of Dr. Richardson's book, we must quote one paragraph from his preface; both as showing the spirit in which the author has conducted his labours, and as expressing the way in which all examinations of natural phenomena must be carried out.

"Whereas it is the business of no man here to set himself up as the prophet of Nature, nor to run before, and so far to dominate over her as to dogmatically assert that she does things which she does not, because he has given the *ipse dixi;* so, in now recording certain new interpretations of some natural phenomena according to my best ability and closest observation, I hold myself still the servant of my divine mistress, ready at any moment, as I grow older and more learned in the knowledge of her laws, to be corrected by her, and to accept her, but none other, as umpire on each and all interpretations which are submitted to the reader. For I know that a true interpretation of a natural phenomenon is in the end irresistible, and that whatever is not true will fall of itself, unsustainable in the presence of the immutable and constantly recurring fact.

"To the true scholar, Nature, the manuscript of the Supreme, is the only book of reference. To him, the elements are the letters of this book—their combinations the words—their manifestations or phenomena the thoughts, Turning up but a brief sentence of this inexhaustible work, I have tried its interpretation with willingness and industry, but with much more of reverence and admiration."

How much more plentifully would truth be elicited, how much more advanced would science be, if the principle of action just now delineated were more generally followed out! We have had, and still have, too much of mere speculative philosophy and wandering conjecture in matters connected with medicine. But the number of true observers and interpreters of Nature is on the increase; and among these Dr. Richardson has established his place. And there is this additional value to be placed on his labours, as chronicled in the volume before us, that as they become more and more comprehended they will, so far as they have truth in them, enable men to promote the great and noble objects of medical art and science.

JOURNAL DE LA PHYSIOLOGIE DE L'HOMME ET DES ANIMAUX. Publié sous la Direction du Docteur E. BROWN-SÉQUARD. Paris, London, and New York: Baillière. Janvier et Avril, 1858.

DR. BROWN-SÉQUARD'S *Journal of Physiology* is a periodical of great merit. The numbers which we have seen contain a number of articles of great scientific and practical value, several of them being furnished by the learned editor himself, whose researches as a physiologist have gained for him a well-deserved reputation. The journal appears on the first days of January, April, July, and October, each number containing from 160 to 200 pages. It is illustrated with plates and woodcuts. We heartily recommend it to all our readers who are interested in the progress of physiological knowledge: they will receive a full measure of instruction for their yearly expenditure of one pound sterling in its purchase.

HANDBOOK OF CHEMISTRY, THEORETICAL, PRACTICAL, AND TECHNICAL. By F. A. ABEL, Director of the Chemical Establishment of the War Department: and C. L. BLOXAM, Professor of Practical Chemistry in King's College, London; etc.: Second Edition. pp. 785. London: Churchill, 1858.

THIS is a work of great value to the practical chemist, as well as to chemical student. The editors have apparently taken great pains to keep it well up to the level of the present state of knowledge.

LETTERS AND COMMUNICATIONS.

Letters or communications for the JOURNAL should be addressed to Dr. WYNTER, Coleherne Court, Old Brompton, S.W.

Letters regarding the business department of the JOURNAL, and corrected proofs, should be sent to 37, Great Queen Street, Lincoln's Inn Fields, W.C.

British Medical Journal.

SATURDAY, MAY 29TH, 1858.

PUBLIC PLAYGROUNDS.

MR. SLANEY has brought in a bill to provide public playgrounds in populous places for the recreation of adults and poor children. In these days, when the great struggles in Parliament are either for place, for the defence of corporate interests, or for the passing of some railway bill, the proposition of the honourable member for Shrewsbury reads strangely enough. We can imagine the air of wonder with which the representatives of wealthy companies, charged with the duty of obtaining Parliamentary sanction for barefaced monopolies, listened to Mr. Slaney's pleading for poor little children; and we can well understand the astonishment of the gentleman who addressed a letter to him from his luxurious club, wondering whether "he really could be in earnest in his intention to propound such a suggestion to the House of Commons." There are doubtless thousands of the same class of minds, who cannot believe it possible that anyone should trouble themselves about affording a mouthful of comparatively pure air, a ray of sunshine, and a few minutes' recreation, to the swarms of wretched children who are "dragged" rather than "brought up" in the crowded neighbourhoods of large cities and towns. We believe, however, with Tom Hood that

> "Evil is wrought
> By want of thought
> More than by want of heart"—

And club gentlemen would soon cease to be astonished at Mr. Slaney's knight-errantry, if they were only to witness the real condition of the poorer children of this metropolis. Le Sage, in his famous *Le Diable Boiteux*, takes the roofs off the houses of a great city, in order to show at one bird's-eye view the wickedness going on beneath; and if any person wishes in like manner to bring before his eye the physical degradation and the diseased condition of a large section of the population of this metropolis, they may speedily accomplish their desires by taking the rail from Blackwall to Mark Lane, or from Shoreditch through Spitalfields: either line runs along the tops of the houses, and reveals, in all their squalid wretchedness, the streets, courts, and alleys below. The spectator, as he flies

along, beholds for a moment snatches of life he could not have imagined to exist. Trenches rather than streets, into which the sun never penetrates; courts noisome with every conceivable nuisance; backyards where nothing but fungi ever flourish,—all conspire to make up a map so dismal and repulsive, that one almost wishes some calamity of fire would sweep it for ever away. Yet in these recesses, so rapidly revealed as the train proceeds, the spectator perceives that there is no lack of youthful life; every well-like court has its group of children; every street is alive with the rising generation. And here they remain. The pleasure-seeker, on his way to Greenwich or Blackwall, knows that when he comes back from the green fields and the pure air, here these children will again meet his view, will be lying on the doorsteps blanched, squalid, and rickety, sinking in disease on the very threshold of life, graduating for the grave ere they have put forth a blossom. And this, be it remembered, is an evil that is increasing just in proportion to the increase of the population. Miles of alleys, built contrary to any true sanitary condition, are being added to this vast Babylon year by year. Open spaces, that once seemed in some measure to dilute the unwholesome and poisonous atmosphere around, are disappearing one by one, and the neighbourhoods of the poor are fast resolving themselves into fever jungles, more fatal than can be found in the tropics. Unless we wish to see the rising generation cankered in the bud, sanitarians must strain every nerve to stop the growing evil. The formation of public parks was the first step towards a better condition of things; but it is of little use to depend upon these places of recreation for the very poor—the squalid children who never go from the streets of their own immediate neighbourhood, and who have not clothes to appear in the public parks, even had they the inclination to go there. These public lungs, as they have been well termed, are admirable things for the adult and better class population; but for children we must have local air-cells—playgrounds at their very doors, to which they may be tempted.

In the Report of the Poor Law Commissioners for 1842 and 1845, the want of places of exercise for the poor residents in close towns was pointed out. Of fifty towns, possessing an aggregate population of thirteen millions, the water supply and drainage for the poor was deficient in 1847, so that the necessity for a supply of fresh air to these persons was apparent. The mortality of the eastern parts of the metropolis, for instance, is double that of the western districts. The fact speaks for itself. In Manchester and Liverpool the mortality of children is very greatly beyond the average. Every large city in the Mortality Tables calls trumpet-tongued for some such measure as that just introduced by Mr. Slaney, and we most heartily wish him success in his labours. It is suggested by that gentleman that the large squares of the metropolis may be given up at stated times for the recreation of the poorer children. We doubt, however, the feasibility of the plan; neither the children nor the inhabitants of the squares would be quite comfortable with such an arrangement; and it would, in our opinion, be far preferable to purchase outright convenient spaces to be permanently set aside for the purposes of public recreation, than to depend upon the goodwill of the owners of property for so essential a condition of health as open space for all those "who live in city pent."

THE WEEK.

The distinguished physiologist, Dr. Brown-Séquard, has been for some weeks past in London; and has been expounding, at St. Bartholomew's Hospital and at the Royal College of Surgeons, his views regarding the physiology of the nervous system. The results at which he has arrived, both from experiments on animals and from pathological observations on the human subject, are such as must bring about a great change in the common opinions as to the parts of the cerebro-spinal axis which transmit the sensory and motor influences. We intend to commence giving, in our next number, an abstract of the lectures which he is delivering in the theatre of the College of Surgeons.

The endeavours which have been made during several years to render the medical degree of the University of St. Andrew's an object worthy of being sought after by the diligent student and well-informed practitioner, are well known; and by all who have had fair opportunities of forming an opinion, the St. Andrew's degree is now looked on as a mark of professional competence. At the recent examination, further advance has been made in the addition to the ordinary papers of a series of questions on clinical cases, and in the institution of a separate examination for honours. The latter, as will be seen from the papers which we publish, consisted of questions on various subjects connected with medical science, and of an investigation of hospital cases for the purpose of diagnosis; the practical part of the examination being conducted in the Royal Infirmary at Dundee. We are glad to observe that a satisfactory position in the clinical examination is made a *sine quâ non* for honours. The senate of University of St. Andrew's have taken a step, which cannot fail to raise the institution to a still higher position in professional estimation than that which it even now possesses.

There seems to be at present what Brother Jonathan would call a "revival" in the ranks of orthodox medical practitioners. Seven years ago, our Association denounced homœopathy with a strong voice; and was either followed or accompanied in its denunciation by several of the learned bodies in the kingdom. Events which have from time to time occurred have shown, however, that a certain amount of laxity has been allowed to prevail in the profession; so that men even of high standing have met homœopaths in consultation. It is time that a stand should be made; and we, therefore, regard with much satisfaction the proceedings taken in regard to homœopathy at the recent meeting of the South Midland Branch. We trust that the example which has been so worthily set by that Branch will be universally followed at all the annual meetings which are about to be held.

The case of the Reverend Mr. Leach, which we noticed in the Journal for April 24th, has been again tried; and, notwithstanding the medical evidence adduced, the jury found, by a majority of 19 to 4, that the reverend gentleman was of sound mind, and perfectly competent to manage his own affairs. This result is certainly encouraging to all who may be inclined to indulge in eccentricities, but who perhaps restrain their propensities from dread of a commission of lunacy.

The Council of the Society of Arts have appointed a Committee to investigate the subject of Mechanical Contrivances as applied to Medicine and Surgery; to promote improvement in their production; to determine and make known desiderata; to examine and report on the merit of apparatus submitted; and to recommend rewards for successful invention. The following gentlemen have been appointed office-bearers in the Committee:—*Chairman*, James Luke, Esq.; *Deputy Chairmen*, Thomas Watson, M.D.; George Budd, M.D., F.R.S.; Henry Charles Johnson, Esq.; and Richard Partridge, Esq., F.R.S.; *Reporters*, Francis Seymour Haden, Esq.; and Mitchell Henry, Esq. The Committee held their first meeting on May 25th, twenty-eight members being present. The objects in view were explained by Mr. C. Wentworth Dilke, the Chairman of the Council. He stated that

"The present Committee was one of a series established to watch and report on the continued progress of every Art represented in the Exhibition of 1851; and that its present reorganisation had especial reference to a more complete illustration of the subject in any future exhibition. The price of surgical instruments in this country was, he had been informed, considerable, in comparison with the productions of France; and though it might be certainly said that English instruments had an advantage in temper and quality, the question was, whether this advantage was commensurate with the great difference of price. The Council, in nominating this Committee, had endeavoured to include persons eminent in every branch of the profession, so as to afford material for the formation of special sub-committees, which should each consist of at least three or four gentlemen."

Association Intelligence.

ADMISSION OF MEMBERS, AND PAYMENT OF SUBSCRIPTIONS.

THE General Secretary of the British Medical Association begs to call the attention of members to the Laws regarding the ADMISSION of MEMBERS, and the PAYMENT of their SUBSCRIPTIONS.

"*Admission of Members.* Any qualified medical practitioner, not disqualified by any bye-law, who shall be recommended as eligible by any *three* members, shall be admitted a member at any time by the Committee of Council, or by the Council of any Branch."

"*Subscriptions.* The subscription to the Association shall be One Guinea annually; and each member, on paying his subscription, shall be entitled to receive the publications of the Association for the current year. The subscription shall date from the 1st January in each year, and shall be considered as due unless notice of withdrawal be given in writing to the Secretary on or before the 25th of December previous."

Either of the following modes of payment may be adopted:—

1. Payment by Post-Office Order to the Treasurer (Sir C. Hastings, M.D., Worcester), or to the undersigned.

2. Payment to the Secretary of the Branch to which the member belongs.

3. Members residing in the Metropolis and vicinity can make their payments through the publisher of the BRITISH MEDICAL JOURNAL, Mr. Thomas John Honeyman, 37, Great Queen Street, Lincoln's Inn Fields, W. C.

PHILIP H. WILLIAMS M.D., *General Secretary.*

Worcester, May 1858.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Twenty-sixth Annual Meeting of the BRITISH MEDICAL ASSOCIATION will be holden in Edinburgh, on Thursday, Friday, and Saturday, the 29th, 30th, and 31st of July.

PHILIP H. WILLIAMS, M.D., *General Secretary.*

Worcester, April 26th, 1858.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE
MIDLAND. [Annual Meeting.]	Board Room, Corn Exchange, Spalding.	Thurs., June 17th, 2 P.M.
LANCASHIRE AND CHESHIRE. [Annual Meeting.]	Medical Institution, Liverpool.	Wednesday, June 30th.

[To prevent delay, Reports of Branch Meetings should be sent direct to the office, 37, Great Queen Street.]

SOUTH MIDLAND BRANCH: ANNUAL MEETING.

THE Annual Meeting of the members of the South Midland Branch was held at Bedford, in the Board Room of the Harpur Charity, on Friday, May 21st, EDWARD DANIELL, Esq. (Newport Pagnell), President, in the Chair. There were also present:—T. H. Barker, M.D. (Bedford); W. A. Barr, M.D. (Northampton); W. Blower, Esq. (Bedford); T. Clark, Esq. (Wellingborough); J. Denne, Esq. (Winslow); W. Denne, Esq. (Bedford); B. Dulley, Esq. (Wellingborough); W. Gibbon, Esq. (Kettering); J. J. Godfrey, Esq. (Great Barford); G. Hammond, Esq. (Irthlingborough); R. C. Hurst, Esq. (Bedford); W. G. Johnson, Esq. (Bedford); P. M'Loskey, M.D. (Rothwell); B. Marsack, Esq. (Olney); F. H. Marshall, Esq. (Moulton); W. Paley, M.D. (Peterborough); T. Philbrick, Esq. (Stamford); C. E. Prior, M.D. (Bedford); W. S. Slinn, Esq. (Ampthill); T. J. Starling, Esq. (Higham Ferrers); R. S. Stedman, Esq. (Sharnbrook); H. Terry, sen., Esq. (Northampton), retiring president; H. Terry, jun., Esq. (Northampton); W. Thurnall, Esq. (Bedford); H. Veasey, Esq. (Woburn); R. W. Watkins, Esq. (Towcester); J. H. Webster, M.D. (Northampton); and J. Williams, M.D. (Aspley). The following gentlemen were present as visitors:—Rev. F. Fanshawe, Head Master of the Grammar School, Bedford; Mr. E. A. Burnham (Bedford); Mr. J. H. H. Howard (Bedford); Mr. Alderman Hurst (Bedford); J. Marriott, Esq. (Kibworth); T. Paget, Esq. (Leicester); Mr. F. W. Parsons (Bedford); Mr. A. C. Rayner (Bedford); B. W. Richardson, M.D. (London); and W. Stowe, Esq. (Buckingham).

Mr. TERRY, the retiring President, on opening the meeting said:—

I have now arrived at the closing scene of my year of office; and I desire to express the great gratification I feel on being appointed to so honourable a position in this Branch of the Association. It is also a real pleasure to me to know that my able and talented friend, Mr. Daniell, will succeed me.

Mr. TERRY, jun., one of the honorary secretaries, read the minutes of the last meeting, which were confirmed.

The retiring President vacated the chair, which was immediately occupied by the new President, EDWARD DANIELL, Esq., who delivered an address, which will appear in next number.

VOTE OF THANKS TO THE PRESIDENT; ELECTION OF PRESIDENT FOR 1859-60.

Mr. TERRY, sen. (ex-President):—I am quite sure that the address we have just heard has made a powerful impression on all our minds, and that every gentlemen present will join in a cordial vote of thanks to Mr. Daniell for his able address, and in a request that it be published in the JOURNAL. I rise also for another object. Our first business is to provide a President for the next year. Having known the friend whose name I am about to introduce, during the whole course of his residence in Northampton, I imagine that his extensive private practice, the personal esteem, and high reputation in which he is held, will be ample apology for any deficiency in my address. There is no one that I am acquainted with whom I could nominate as President-elect with greater confidence or with greater satisfaction than Dr. Webster, of Northampton. [*Applause.*] His great energy, industry, and praiseworthy efforts in advancing the in-

terests of the British Medical Association, and especially the support extended by him to this young Branch—for it is only two years old—render him altogether a most acceptable candidate. All of us, I am sure, must have cordially assented to his remarks on medical ethics at the last anniversary; and it is with the greatest possible pleasure that I propose J. H. Webster, M.D., of Northampton, to be President-elect for the ensuing year.

Mr. Gibbon (Kettering), seconded the nomination.

Dr. Barker (Bedford):—It is with the greatest pleasure that I support the nomination of Dr. Webster as President-elect. I can testify, personally, to the valuable assistance rendered by him. From the very first moment the idea of forming this Branch was mooted, he has most cordially worked with us; and I do not know any gentleman more able to fill the presidential chair when it comes to his turn. Before sitting down, I beg to inform the members that we are honoured by the presence of the Head Master of the Grammar School of this town. Mr. Fanshawe has favoured us with his presence with some reluctance, having some suggestions to throw out to the meeting in reference to the promotion of education generally, but more particularly relating to the elements of our own profession; and therefore I have taken upon myself to invite him to come amongst us [*Hear, hear*]; and I have no doubt any suggestions from the Head Master will be received with respect.

The President: Before I put the proposition, allow me to express the gratification I feel at the thought that Dr. Webster will succeed me. The occupancy of this chair was far distant from my ambition; and when I see so many enlightened medical men around me, I must say that I do feel proud of the honour. The admirable choice now made by the members will, I doubt not, give the greatest satisfaction.

The nomination of Dr. Webster was carried by acclamation.

Dr. Webster briefly returned thanks to the members for having appointed him President-elect for the ensuing year. He would merely state that it was natural they should all take an interest in everything connected with their profession; and there could be no doubt that these meetings contributed to their mutual benefit. He hoped when he succeeded to the office of President, that he would not be found wanting; but that he should be able to discharge the duties to the satisfaction of his respected friends who preceded him. [*Hear, hear.*]

THE UNIVERSITY EXAMINATIONS: SCIENTIFIC INSTRUCTION IN PUBLIC SCHOOLS.

The Rev. F. Fanshawe said it was with some hesitation he appeared there; but as Dr. Barker had been kind enough to intimate the nature of his visit, he would take the liberty of saying a few words. The reverend gentleman then made some remarks on the importance of teaching chemistry, botany, zoology, and animal and vegetable physiology in our public schools, in order that the pupils may be prepared for the new examinations which had been instituted by Oxford and Cambridge Universities. The President had made a remark in reference to the labours of Dr. Acland, of Oxford. He (Mr. Fanshawe) did not know a more self-denying class than the gentlemen of the medical profession, or who made greater personal sacrifices for the benefit of mankind; and he was happy in having an opportunity to express his personal respect for a man so self-denying as Dr. Acland. He was aware that a recent occurrence at Oxford might induce some to think that Dr. Acland was selfish and grasping; but, having the pleasure of knowing that gentleman well, he was satisfied that he was guided only by an intense desire to promote the welfare of his university and the public good.

The President thought the suggestions thrown out were very important. In a town like Bedford there could be no difficulty in teaching boys the elements of those branches referred to by the head master,—such as chemistry, botany, elementary physiology, etc. With such men as Bedford possessed, and the admirable schools for the instruction of children, he should say there could not be much difficulty in carrying out the views of Mr. Fanshawe.

NEW MEMBER.

T. Philbrick, Esq., of Stamford, was unanimously elected a member of the Branch.

COMMITTEE.

Mr. Gibbon proposed, and Dr. Prior seconded, a vote of thanks to the Committee for their past services, and that they be re-elected for the ensuing year.

The members of the Committee are T. H. Barker, M.D. (Bedford); John Bryan, M.D. (Northampton); B. Dulley, Esq. (Wellingborough); P. R. Nesbitt, M.D. (Northampton); W. Thurnall, Esq. (Bedford); H. Veasey, Esq. (Woburn); R. W. Watkins, Esq. (Towcester); and J. H. Webster, M.D. (Northampton).

REPRESENTATIVES TO THE GENERAL COUNCIL.

Drs. Barker and Webster were re-elected as representatives of the Branch in the General Council; and, the number of members entitling the Branch to a third representative, H. Veasey, Esq. (Woburn), was elected.

HONORARY SECRETARIES.

H. Terry, Jun., Esq., and R. S. Stedman, Esq., received the thanks of the meeting for their past services as honorary secretaries, and were re-elected with acclamation.

HOMŒOPATHY.

The following resolutions were unanimously adopted by the meeting:—

1. That so long as a system has no higher philosophy than the jargon of "similia similibus curantur", nor sounder chemistry than the delusion of "infinite dynamisation", it is degrading to a man of education to be connected with it. He, therefore, who assents to consultation with homœopaths, be they impostors or dupes, forfeits the respect of his professional brethren, and his membership of this Branch of the British Medical Association.

2. That it is the opinion of this meeting that no honourable man, whether physician or surgeon, can meet in consultation a homœopathic practitioner, or, as such, can act in conjunction with him.

[The interesting discussion elicited by these resolutions will be given *in extenso* in our next Journal.]

POOR-LAW MEDICAL OFFICERS.

Mr. Watkins (Towcester) believed it was generally admitted that medical men connected with Poor-Law Unions were very inadequately remunerated for their services. There could not be two opinions on that point. As they had still much business to get through, he would at once move that a petition be presented to the House of Commons, and a memorial to the Poor-Law Board, from the South Midland Branch of the British Medical Association.

Dr. Williams (Aspley Guise) seconded the motion.

Mr. Dulley (Wellingborough) thought the matter was entirely in the hands of the medical profession. It was a well known fact, that if one medical man refused to accept or continue in office at an inadequate salary, there were always men to be found ready to take it on the same terms. It was of very little use to petition the legislature as long as the members of the profession refused to do their duty to themselves. He should like to see medical men properly paid.

The President said, that having once being a medical officer in a Poor-Law Union, he was enabled to speak from experience; and he could assure the members of the Society that he felt thankful to be released from the duties of an arduous and unremunerative appointment. If by any means medical men could be bound to follow a common principle of action, the evils of which they had just cause to complain, might soon be remedied. His appointment brought him in £30 a-year; and when he tendered his resignation, a respected clergyman in the neighbourhood asked what he wanted? He said £75 a-year. The guardians would not give that sum; and at the next meeting, another gentleman accepted the office at £30.

Mr. Paget (Leicester) said it was a truth—a melancholy truth—that the remedy must come from the profession. They must not rely upon such resolutions as now proposed, although it was right that the public mind and the legislative mind should be informed of the unfair manner in which members of the profession were treated. He was confident that resolutions and petitions were of very little use. The movement to rectify their grievances must come from the profession. [*Hear, hear.*]

The petition and memorial were unanimously adopted, and received the signatures of the medical gentlemen present.

PAPERS AND COMMUNICATIONS.

On Cholera. By W. Blower, Esq., Bedford. This was a continuance of a former paper entitled "Contributions to the Medical Topography of Bedford." [The paper will be published in the Journal.]

The following preparations, apparatus, and instruments, were exhibited:—

1. A new form of Invalid Bed. By W. Denne, Esq. (Bedford.)

2. Specimen of an enormous Malignant Tumour of the Liver, with the Omentum and Uterus from the same subject. By W. G. Johnson, Esq. (Bedford.)

3. Hutchinson's Spirometer. By T. H. Barker, M.D. (Bedford.)

4. A Glass Spirometer, efficient and not costly. Constructed by J. Williams, M.D. (Aspley Guise.)

VOTES OF THANKS.

Votes of thanks were passed to the ex-President, H. Terry, Esq.; to the President, E. Daniell, Esq.; and to the Trustees of the Harpur Charity, for the use of their Board-Room.

The members and visitors dined at the George Hotel, at five o'clock.

The usual loyal and professional toasts were proposed and responded to with much enthusiasm.

A more numerous, unanimous, and enthusiastic meeting of medical men, was probably never before held in the town of Bedford.

Reports of Societies.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, MAY 3RD, 1858.

B. G. BABINGTON, M.D., F.R.S., President, in the Chair.

EPIDEMIC DIPHTHERITIS AND PREVALENT SORE THROAT.

BY WILLIAM CAMPS, M.D.

THE author commenced by referring to a paper on the same subject, which he had read at the beginning of the year at the Medical Society of London. Since that time, the subject of diphtheritis, whether occurring in sporadic cases, or as an epidemic, had attracted much attention, both in the metropolis and in various parts of the country. The weekly mortality tables of the Registrar-General, the discussions upon the subject at many of the metropolitan medical societies, and the numerous communications made to the medical periodicals, were evidences in proof of this statement. Dr. CAMPS thought that in the throat affections which had been prevalent of late there might be recognised at least three well-marked varieties of disease, if not decidedly distinct diseases. In the *first* place, among the cases of so-called diphtherite, not a few had presented such characters as entitled them to be considered as analogous to, if not identical with, that affection well described by M. Bretonneau and others in France, and by him designated *Diphthérite*. In the *second* place, many cases presented many of the characters of that affection well described in the last century by Dr. Fothergill, under the name of Putrid Sore Throat, or Sore Throat attended with Ulcers. In the *third* place, some of the cases must be allowed to have been that affection of the throat that accompanies scarlatina. Admitting, then, the existence and prevalence of the above-mentioned forms of throat affections, there had been among these cases ranging from the mildest to the severest forms of one or other of these affections. Dr. Camps detailed in brief what he had been able to collect from the observers who had recorded their observations of the prevalent throat affections in various parts of the kingdom. The disease described by M. Bretonneau, and others in France, had usually, though not always, appeared as an epidemic affection. He thought that many of the cases of throat disease that occurred in 1855 and 1856 at Boulogne were cases of diphtherite. Here it assumed an epidemic character, and in many instances it proved fatal. In this country, too, the majority of the severer and fatal cases that had come to the author's knowledge had occurred under circumstances of number, time, and place, which justified the application of the term epidemic. The type of the disease, as described by various observers, was essentially asthenic or adynamic. Dr. Camps referred to the prevalence of stomatitis in some of the metropolitan districts; between which disease and diphtherite he thought the difference was one of degree rather than of kind, the former affection being a milder result of the same general morbific cause. Their varieties of subacute or asthenic mucous inflammations, attended with pseudo-membranous exudations of a fibrinous character, he regarded as so many different manifestations of the same general morbid conditions of the system; and this tendency to the formation of fibrinous pseudo-membranous exudations should be regarded as evidence rather of a peculiarity than of intensity of inflammatory action.

Dr. Camps referred to the recorded experience of Mr. Brown of Haverfordwest, who, during 1849 and 1850, saw a great deal of epidemic diphtherite in that place, where he had under his own care at least two hundred cases, forty of which proved fatal. During the epidemic, Mr. Brown had the opportunity of making *post mortem* examinations in two cases, in which the pharynx, tonsils, larynx, trachea, and bronchial tubes were found to be more or less coated with false membrane; the larynx and trachea were highly coated, and the stomach also showed signs of great irritation. In 1856 and 1857 an epidemic disease of a somewhat similar nature prevailed in two or three of the parishes of the Ely Union, in Cambridgeshire, in the practice of Mr. J. C. Davie, of Haddenham, who applied to the disease the term Broncho-Tracheitis. This gentleman had about forty cases under his observation, of which more than one-half, or upwards of twenty, proved fatal; and nearly all, if not all, of the sufferers were very young children; and in these the disease was, for the most part, of very short duration, varying in duration from one to four, five, six, or seven days. Mr. Davie made *post mortem* examinations in three instances, and found the mucous membrane of the trachea and commencement of the right bronchi inflamed to a small extent, and the latter partly filled with fluid mucus. The left bronchi was healthy, as also were the heart and lungs. In one case, he perceived three distinct deposits on the mucous membrane of the trachea, somewhat resembling curd. The symptoms of broncho-tracheitis he considered to be different from those of laryngitis. Mr. Davie considered the disease that came under his notice to be different from that described by M. Trousseau, except in two or three cases.

Dr. Camps then proceeded to consider the description of the putrid or ulcerated sore throat, as detailed by Dr. Fothergill more than a century ago. It had not before that time attracted much attention in England, although it had spread like a plague with much fatality through many of the southern parts of Europe about a century before. Dr. Camps read the propositions laid down by Dr. Fothergill in reference to the characters, progress, and termination of the prevailing or epidemic sore throat of his day; and pointed out, in many respects, that the description given by Dr. Fothergill accorded with that of many cases of throat affection that had lately been brought under his own observation, as well as of many cases recorded from time to time. He drew attention to a valuable paper on Diphtherite, by Mr. West, published in the last number of the *Midland Counties Journal;* at the same time stating that in some respects he differed from the author of that paper. He then referred to the numerous communications on diphtherite and throat affections that had appeared in our weekly medical journals within the last twelve months, specifying particularly such instances as appeared to him to have been either cases of diphtherite or of ulcerated sore throat, resembling that described by Dr. Fothergill, or of sore throat accompanied by, or consequent upon, scarlatina. Many of the local reports on the progress of epidemic diseases, recorded in the *Sanitary Review* during the last six months, contained valuable observations upon diphtheritis and prevalent sore throat.

A discussion followed, in which Mr. Lord, Dr. Greenhow, Dr. James Bird, Mr. Radcliffe, Dr. H. Weber, Dr. Milroy, and the President took part.

Editor's Letter Box.

GUTTA-PERCHA BOUGIES BROKEN INTO THE BLADDER.

LETTER FROM JOHN THOMPSON, ESQ.

SIR,—The case reported in your last number of the patient in Guy's Hospital, suffering from a piece of bougie lodged in the bladder, at once struck me. Before reading the case I felt a strong suspicion the bougie was made of gutta-percha, as I have witnessed two cases in which accidents have occurred by the breaking of urethral bougies made of this material. I have long since intended communicating an opinion of the danger of using such bougies, and I now do so with the greater confidence, seeing the unfortunate accident that happened in the case first referred to. In the cases witnessed by me the pieces of bougie were removed from the urethra at once, but in one case not without much difficulty.

I am, etc., JOHN THOMPSON.

Bideford, May 24th, 1858.

STRABISMUS: OUGHT AN OPERATION TO BE UNDERTAKEN FOR ITS CURE?

Letter from C. Holthouse, Esq.

Sir,—To many of your readers the above question must doubtless appear unnecessary; yet great difference of opinion prevails on the subject; and were the whole profession polled, I am disposed to think that the majority would answer it in the negative. I am led to this conclusion from having so frequently met with individuals who, while suffering from this deformity, decline undergoing the operation because their medical attendant has advised them not to have it done.

I was recently consulted by a gentleman twenty years of age who had had strabismus from childhood, and was most anxious to get rid of the deformity; but unfortunately both relatives and medical men had strongly dissuaded him from submitting to an operation; and so this young man was enduring an unsightly defect at the most sensitive period of life, for no better reason than that just given. A short time before this a lady called on me for advice respecting two of her sons, both of whom squinted badly. After a careful examination of their eyes, I recommended an operation, but it was declined, the lady adding that she had consulted several medical men before coming to me, but they all counselled her not to have the eyes meddled with. On hearing this, I re-examined them, and became more convinced than before of the soundness of the opinion I had given. I asked her if she had had the opinion of an ophthalmic surgeon. She replied she had. "And what did he say?" She hesitated, and then added, "Well, he said the same as you do; but he is the only one besides yourself who did." "May I ask his name?"—"Bowman."

It would seem, then, that those whose extensive opportunities and large experience in this branch of practice entitle their opinions to most weight, advocate the operation, whilst others who do not enjoy these advantages, and who have perhaps seldom or never operated, are opposed to it. How is this? I believe it will often be found that the opponents of the operation are those who have attempted it themselves and failed, while in other cases opposition may have arisen from a knowledge of its failure in the hands of others: in either case such a result is apt to be regarded as inevitable, and what is really the fault of the operator to be set down to the operation. Hence with many, perhaps the majority of surgeons who have not much practised ophthalmic surgery, the operation has come to be regarded as an uncertain one, in which the risk of failure is considerable, while the chance of success is not great.

That this is an erroneous view I have no hesitation in declaring, and I believe every ophthalmic surgeon will bear me out in the assertion, that in the hands of skilful and practised operators the per centage of failures is extremely small; and even these might be reduced still further by attention to circumstances which I shall point out in a future number of your Journal. I am, etc., C. Holthouse.

London, May 24th, 1858.

LOCAL APPLICATION OF CARBONIC ACID GAS.

Letter from Thomas Skinner, M.D. M.R.C.S.E.

Sir,—This communication should have been with you long ere this, were it not that I have had no spare time.

I noticed in your Periscope for April 10th an article taken from the *Dublin Medical Press* of March 10th, wherein Dr. Robert Johns of Dublin lays claim to be the first to apply carbonic acid gas to the interior of the bladder, and gives his experience of the practice.

The faculty undoubtedly ought to feel very much indebted to Dr. Johns for so soon making public his interesting observations. At the same time, for myself, I feel it very hard that a subject at which I have worked for some time, and that the same results which I came to a *year* ago and more, should be taken up and published by another. Such is the way of the world!

My reason for remaining so long silent has been, that for the last two years I have been assistant to Professor Simpson of Edinburgh; and this discovery, among many others, I made in his own house, and upon his own patients; so, in deference to Dr. Simpson, I declined to publish it as long as I was with him. Having settled in Liverpool lately, and having found a convenient opportunity of bringing the subject before the Medico-Chirurgical Society here on the 15th of April last, I had *engaged* to write the paper a fortnight before, and would have done it months before, only opportunity was wanting. I then read a paper on the "Inhalation of Carbonic Acid Gas in Bronchial and Pulmonary Affections". At this meeting I showed the Society the inhalation of the *deadly* gas on my own person with impunity, in spite of what Mr. Taylor says of M. Guerard's opinion, and of his own observations at the Grotto del Cane. At the same time, I informed the Society that "there was not a surface of the body comeatable to which I had not applied it". And surely, if I had used it freely as a sedative to the pulmonary mucous surface, I was not the likely man to hang fire at the vesical, more especially as I am laying myself out for an obstetrician. At the same meeting I showed them all my apparatus for applying it to the eye, ear, nostrils, mouth, air-passages and lungs, the vagina, cervical and uterine cavities, rectum and bladder; also to the cutaneous surface in cancer, burns, and irritable ulcers. I directed their attention particularly to Dr. Johns' excellent paper, which I had only become acquainted with a few days previously (April 11th) in the pages of your Journal.

It is quite plain from Dr. Johns' paper that he has had very little experience of injecting the bladder with carbonic acid gas, beyond the three cases he has reported. As I have had a large experience in such cases, and have three most interesting ones going on at this moment, and as this letter is already long enough, if publicity is afforded this communication, and you think it would be desirable, I will be most happy to give a digest of my experience, with a few of my most interesting cases. I will also be happy to describe a much safer, simpler, more portable, and more effectual apparatus, than that of Dr. Johns, whose method was also my *original* one; and I will endeavour to disabuse the mind of the faculty in regard to the absurd idea of poisonous, disagreeable, or dangerous results.

I would have offered a paper on the "Inhalation of Carbonic Acid Gas", but I understand Dr. Simpson intends publishing the cases himself; and it was Dr. Simpson who first used it to the lungs, and in his own peculiar way, so far as my knowledge extends.

Should you desire a paper on the subject of injecting the bladder with carbonic acid gas, with my apparatus, experience, and cases, I am at your service. I am, etc.,

Thomas Skinner.

57, Catharine Street, Liverpool, May 10th, 1858.

[Dr. Skinner is, as many others would be, rather sore that another medical man, having hit on the same idea with himself, has published it before him. But we have no doubt that Dr. Johns, while undoubtedly entitled to the claim of being an independent observer, will be liberal enough to grant to Dr. Skinner all the merit due to him. With regard to Dr. Skinner's obliging offer, we shall be happy to accept it. Editor.]

MEDICAL REFORM AND AMENDMENT OF PROFESSIONAL TITLES.

Letter from F. J. Sandford, Esq.

Sir,—All liberal minded members of our profession have doubtless learned with satisfaction that the approaching consideration by Parliament of the Medical Reform Bill recently prepared by the Right Hon. W. Cowper, at the instigation of the Council of the British Medical Association, will afford a favourable opportunity of effecting some improvement in the social *status* of those of our professional brethren now popularly known as "general practitioners". It will be a subject of much regret if that powerful section of the promoters of the Bill acting on behalf of the general practitioners do not, while the measure is under the consideration of the legislature, procure the abolition of the inappropriate and offensive title which the Court of Examiners of the Society of *Apothecaries* at present unavoidably inflicts upon the candidate who, after subjecting himself to a comprehensive curriculum of study, and subsequently passing a rigid examination in medicine and several of the allied sciences, has been declared to possess a competent knowledge of his profession. The licentiate, who obtains the license to insure a legal claim to remuneration for his services, now regards the certificate, or *license*, as "a document it is desirable to hide in the secret recesses of his *escritoire*".

All intelligent persons must admit the utter inadequacy of the title of "*apothecary*" as the characteristic designation of those legally authorised to discharge the highly responsible functions appertaining to the medical advisers of at least 9,999 of every 10,000 of the millions of people in this country.

Are not men so eminently characterised by intelligence and scientific attainments, and who, moreover, unequivocally manifest so much philanthropy in the performance of very arduous duties, entitled to a better position in the social and professional scale than that which they now have?

Considering the nature of the examination which candidates for the license obtained at the Hall undergo, it is certainly most unjust to impose upon them a title derived from the secondary and comparatively unimportant functions which they perform, and which, in fact, are as frequently performed by pupils and other subordinates as by themselves. While it is very desirable that the law should leave the medical practitioner the option, as at present, of dispensing his own medicines, and of charging for his medicines and attendance, as many M.D.s now do, it would only be a just concession to allow him to shake off a title quite obsolete in the sense in which it was first used.

I humbly suggest that it is highly desirable that the new Examining Board should be a faculty empowered to confer the degree of Bachelor of Medicine and Surgery upon those who are, or become, members of a College of Surgeons, and also obtain a triple licentiateship of medicine, surgery, and obstetricy. The new order of general practitioners would then have, in common parlance, *the courtesy title of Doctor*, which, I would observe, is the ordinary designation of the medical adviser of all classes in Germany,* and in other parts of Europe. While the proposed courtesy doctorate would probably be by some persons of merely analogous value to the spurious title of Esquire, accorded even by the highest classes in the community to professional men and persons of patrician rank, not actually esquires by creation, office, or legal privilege, the great majority of the members of the profession would, I believe, consider the bachelorate I suggest well calculated to improve the *status* of those in general practice under the new *regime*.

The M.B.C. would occupy a position nearly equal to that of the M.B. proceeding to the degree of M.D., with the view of practising solely as a physician. The Senates of the Universities which now confer doctorates and bachelorates of medicine, etc., would not, I think, object to confer the proposed subordinate or minor degree of M.B.C., if authorised and required so to do by the Medical Council constituted by Mr. Cowper's Bill. The Council itself would confer the degree of M.B.C. with far less appearance of performing incompatible functions than does the Archbishop of Canterbury when that eminent prelate confers the degree of M.D. or M.A. Those who become licentiates of the Colleges of Physicians are obliged afterwards to get their titles of Doctor from some of the Universities.

All circumstances considered, I think the proposition to create the M.B.C. degree will not be deemed an unreasonable one, more especially after taking into consideration the fact that a large proportion of the M.D.s in practice have purchased their diplomas at Giessen, Leipsic, St. Andrew's, Aberdeen, or other Doctor-factories, where there is either no examination, or the prescribed ordeal is not superior, if even equal, to that undergone by the *physician*-apothecaries, who are now dubbed apothecaries by the medical corporations, to which the public is so largely indebted for the vast improvements effected during the present century in the education of the "general practitioner".

Some elaborately framed and well digested propositions for the substitution of the doctorate in surgery for the membership of the Royal College of Surgeons were a few years ago promulgated by the medical profession of the Isle of Man, and are worthy of careful consideration.

A suggestion somewhat similar to that which I have offered in reference to the general adoption of the title of Doctor† by those *who are unquestionably physicians*, would most probably have emanated from the British Medical Association, if a large portion of the Presidents and Secretaries of the Branch Associations had not been graduates of some of the Universities to which I have alluded, and had not consequently an interest in maintaining themselves in rather a higher grade than that to which the majority of their provincial brethren belong.

The contemplated amendment of the laws which regulate the medical profession and the medical polity of the British empire will fall very short of what expediency, reason, and justice dictate, if it does not considerably improve the status of the members of the general body of the profession, by placing them on as good a footing in society as the general practitioner in all other countries.

If the members of a new order are merely to have the name and style of licentiates of medicine and surgery, either with or without the title of surgeon, all idea of materially improving the educational and social *status* of the general practitioner may be at once abandoned. Instead of perpetuating the degradation of the larger portion of the profession, by maintaining broadly marked distinctions, for the purpose of preserving a medical aristocracy, every available means should be employed to entitle them to be treated with greater consideration than they now experience from the higher grades of society.

I am, etc., F. J. SANDFORD.

Market Drayton, May 23rd, 1858.

* When the authority to practice has been acquired, the German Doctor has full power to officiate in medicine, surgery, and obstetricy. By a Bavarian degree, passed in 1843, a subordinate class of practitioners was partially suppressed.

† The doctors by diploma would still maintain their relative, *i.e.*, higher rank, by writing M.D. after their names.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

In these lists, an asterisk is prefixed to the names of Members of the Association.

BIRTHS.

DAVIES. On May 13th, at Abersychan, the wife of *Andrew Davies, Esq., Surgeon, of a daughter.

GRAYLING. On May 24th, at Sydenham, the wife of *George Grayling, M.D., of a son.

GULL. On May 8th, at 8, Finsbury Square, the wife of W. W. Gull, M.D., prematurely, of a son, stillborn.

HARWOOD. On May 18th, at Derby, the wife of *Charles Harwood, M.D., Surgeon 1st Derby Militia, of a son.

THOMSON. On May 18th, at Ramsgate, the wife of John B. Thomson, Esq., Surgeon, of a son.

THWAITES. On May 18th, at Bishop Auckland, the wife of *T. B. Thwaites, Esq., Surgeon, of a son.

MARRIAGES.

RICHARDS—WALKER. RICHARDS, George Seale, Esq., of Worcester, to Charlotte, youngest daughter of the late Roger C. Walker, M.D., 3rd Light Dragoons, at St. Pancras Church, on May 18th.

DEATHS.

HENZELL. On May 18th, at Newcastle, George Harle Henzell, Esq., aged 26, eldest son of the late C. R. Henzell, Esq., Surgeon.

HEWSON. On May 20th, at Cheltenham, Martha Elizabeth Ann, wife of George F. Hewson, M.D.

MANTELL. On March 29th, at Balasore, Bengal, of cholera, Mary Anne, wife of Alfred A. Mantell, M.D., H.E.I.C.S., aged 23.

OAK, Thomas, M.D., at Blackheath Park, aged 72, on May 19.

PASS LISTS.

ROYAL COLLEGE OF SURGEONS. MEMBERS admitted at the meeting of the Court of Examiners, on Friday, May 21st, 1858:—

FAWSSETT, Frederick, Wisbeach, Cambridgeshire
FLINN, John James, Liverpool
GRIFFITH, Hugh, Pwllheli, North Wales
HETT, Henry Nicholson, Brigg, Lincolnshire
HOUSLEY, John, Mansfield Wood House, Notts.
JONES, John Morgan, Rhydfurerinion, near Devil's Bridge, North Wales
LAMBLY, Thomas Walcott, Demarara, W.I.
LOMAS, William, Guildford
MASON, Frederick John, Wisbeach, Cambridgeshire
MORRIS, William Henry, Studley, Warwickshire
NISBETT, Robert Innes, King William Street, City
VINTRAS, Achille, Tilly-sur-Leulles, Calvados, France
WALKER, Arthur, Scarcraft, near Leeds
WHITWORTH, John, Heckmondwike, near Leeds
WOTTON, Charles, King's Langley, Herts

Monday, May 24th:—

CARDELL, George, St. Columb, Cornwall
CAYZER, Thomas, Erith, Kent
HILL, Thomas Johnson, Melton Mowbray

IRWIN, James, Six Mile Cross, co. Tyrone
LAW, John, Hon. East India Company's Service
MCCARTHY, Florence, Cork
MOXON, Walter, Barnsbury Park, Islington
PARTINGTON, George Augustus, Manchester
ROCHE, William, Fermoy, co. Cork
WILKINSON, John, Salford

LICENTIATES IN MIDWIFERY admitted at a meeting of the Board, on May 26th:—

ALLEN, John, Langton, Staffordshire: diploma of membership dated April 7th, 1858
ARNISON, William Christopher, Allendale, Northumberland: April 7th, 1858
BACON, George Mackenzie, Lewes, Sussex: April 7, 1858
BEAUMONT, John Morton, Upper Chelsea: Jan. 14th, 1858
BOWES, John, Workington, Cumberland: March 5th, 1858
COLLYER, James, Playden, Sussex: April 16th, 1858
CORBET, David, Orsett, Essex: February 19th, 1858
EATON, James, Grantham: April 19th, 1858
GRACE, Henry, Kingswood Hill, near Bristol: April 19, 1858
HARVEY, Henry Offley, Hailsham, Sussex: March 29, 1858
PEILE, Bransby Cooper, Hurstpierpoint, Sussex: May 4, 1855
PICKETT, Jacob, Ipsden, Oxon: March 19th, 1858
RANSOM, Robert, Cambridge (Fellow): March 18th, 1842
WILLIAMS, John, Llanerchymedd, Anglesea: April 21, 1856

UNIVERSITY OF ST. ANDREW'S. The following gentlemen, having previously obtained the Degree of Doctor of Medicine, have been placed in the list of Honours:—

CLASS I.

RULE, Samuel, London Hospital
COOK, Henry, Hon. East India Company's Service
BOWEN, Essex, late Royal Artillery
POTTER, Henry, Limerick

APOTHECARIES' HALL. Members admitted on Thursday, May 20th, 1858:—

BELCHER, Robert Shirley, Burton-on-Trent
BENNETT, Edward Augustus, Manchester
EDWARDES, Charles Lawrence, Pitsea, Essex
GORDON, William, Cradley, Dudley
HUGHES, Thomas Hunter, Pwllheli, North Wales
JENNINGS, Frederick Cook, Wakefield
JULOTT, Charles James, Manchester
NAYLOR, James, Halifax, Yorkshire

HEALTH OF LONDON:—WEEK ENDING MAY 22ND, 1858.

[*From the Registrar-General's Report.*]

THE deaths registered in London, which in each of the two previous weeks were about 1050, rose in the last week, ending Saturday, May 22nd, to 1082. In the ten years 1848-57, the average number of deaths in the weeks corresponding with last week was 1030; but as the deaths of last week occurred in an increased population, they can only be compared with the average, after the latter is raised in a degree proportionate to the increase, a correction which will make it 1132. Hence it is seen that the actual number of deaths now returned is less by 50 than the number which would have occurred if the average rate of mortality, as calculated for the third week of May, had prevailed.

Of the deaths amounting to 251 from the order of diseases termed in the tables *miasmatic*, the largest proportion is still contributed by whooping-cough, which carried off 72 children, of whom 52 died within the first two years of life. Mr. Butterfield, the registrar of the east sub-district of Islington, by whom six deaths from this complaint are returned for the week, states that it has been the fatal disease in 14 per cent. of the deaths registered by him since the 13th of April. Measles was fatal last week in the next degree, 60 children having died of it (four of these in the sub-district of St. John, Westminster). There were 48 deaths from scarlatina, five of which occurred in the sub-district of St. George-the-Martyr, Holborn. It was mentioned in last return that three children belonging to the same parents had died of scarlatina in Hyde Park Barracks; it is now stated that the fourth, and last child in the family, has died from the same disease. The wife of a labourer in the Royal Arsenal, Woolwich, died at 34, Charlotte Street, Plumstead, of "cholera, typhoid fever", after six days illness. Six persons who had attained the age of 90 years and upwards were registered in the week, the two oldest of whom were a man, aged 96 years, who died in Great Dover Street, Newington, and a woman, aged 97, in Beaumont Street, Marylebone. Besides these, a labourer's widow died at the age of 100 years, at 4, Pratt Alley, Whitechapel.

Last week, the births of 846 boys and 779 girls, in all 1625 children, were registered in London. In the ten corresponding weeks of the years 1848-57, the average number was 1548.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·761 in. The highest barometrical reading was 29·97 in., on Thursday. The mean temperature of the week was 54·9°, which is 1·6° above the average of the same week in 43 years (as determined by Mr. Glaisher). The highest point attained by the thermometer in the shade was 71°, on Friday; the lowest point was 42·7°, on the day previous. The range of temperature in the week was therefore 28·3°. The mean daily range was 19·3°. The difference between the mean dew-point temperature and air temperature was 9·4°. The mean degree of humidity of the air was 72, complete saturation being represented by 100. The mean temperature of the water of the Thames was 55·5°. The direction of the wind was south-west. Rain fell to the amount of 0·27 in. On Wednesday afternoon there was a very heavy squall of wind, accompanied by thunder and heavy rain.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following questions were submitted to the candidates at the recent examination for the Fellowship:—

May 20th, 1858. *Surgery and Pathology.* No. I.—1. Describe the varieties of hæmorrhoids, their usual causes, and the most approved modes of treatment. 2. State the circumstances under which paracentesis thoracis may be required; how is the operation to be performed, with the subsequent management of the aperture in the chest. 3. State the nature and most approved treatment of bursal tumours in the usual seats of their occurrence. 4. Describe emphysema as a surgical disease in respect to the usual mode of its occurrence, its characters and treatment. 5. State the circumstances of a strangulated hernia which demand immediate performance of the operation. 6. State the treatment to be pursued when, in operating upon a hernia, a considerable portion of intestine is found mortified. No. II.—1. Describe the local and constitutional symptoms of inflammation of veins, with the accompanying pathological changes in the veins and other parts. 2. State the effects of injury to the medulla oblongata and to the spinal cord in its cervical, dorsal and lumbar portions. 3. Describe the varieties of nævi and their appropriate treatment. 4. State the cases for which excision of the bones of the elbow-joint is advisable. Describe the operation and the future condition of the arm in the most favourable cases. 5. State what are the tumours occurring in the female breast, how they are to be distinguished and treated. 6. Describe the history and treatment of traumatic gangrene and gangræna senilis.

May 18th, 1858. *Anatomy and Physiology.* SENIOR CANDIDATES.—1. Describe the basis of the brain, with the medulla oblongata, and the origins of the nerves proceeding therefrom. 2. Describe the situation and structure of the male urinary bladder, prostate, and vesiculæ seminales. 3. Describe the situation and connexions of the uterus and vagina, with their appendages. 4. Describe the course and relations of the subclavian and axillary artery. 5. Describe the situation and connexions of the stomach, with its blood-vessels and nerves. 6. Describe the structure of the heart, including the arrangement of its muscular fibres, the structure and mode of action of its valves, its blood-vessels and nerves. JUNIOR CANDIDATES.—1. Describe the situation and relations of the several parts occupying the cavity and lower opening of the male pelvis. 2. Describe the structure and functions of the spinal cord. 3. Describe the structure and functions of the stomach and intestines, stating the changes which the food undergoes in each portion of the digestive canal. 4. Describe the structure and functions of the tongue, including the actions of its muscles, with the particular influences of its several nerves. 5. Describe the minute structure and functions of the lungs, with the changes which take place in the respired air. 6. Describe the channels through which blood will be transmitted to the lower limb after the ligature of the common iliac artery.

THE ARMY SANITARY COMMISSION. The 79th "Appendix" to the Report of the Commissioners appointed to inquire into the sanitary condition of the army has been published in the form of a blue book of 200 pages. It contains a variety of miscellaneous correspondence on incidental matters.

UNIVERSITY OF ST. ANDREWS: EXAMINATION FOR HONOURS.

IN the examination for honours recently held for the first time at the University of St. Andrews, the following were the points taken into consideration.

1. The manner in which the candidates answer the questions, contained in the five examination papers for ordinary degrees.

2. The manner in which they answer the questions contained in an addditional general paper, embracing comparative anatomy and physiology, the higher departments of human physiology and pathology, and medical jurisprudence.

3. Their readiness in diagnosis by the bedside.

Examination Paper. 1. Explain the mechanism by which the eye is enabled to adapt itself to different distances. 2. Give a general sketch of the organs and process of respiration in birds, reptiles, amphibians, and fishes. 3. Describe the organs and process of reproduction in insects, and state what peculiarities in reference to reproduction are exhibited by bees and aphides. 4. What relationship has been established between the cystic and the cestoid entozoa? Describe the experiments which led to the discovery of this relationship, and shew the practical value of the facts which have been ascertained. 5. A stomach with its contents is sent to you for examination in a case of suspected poisoning. State what processes you would adopt in searching for prussic acid, opium, oxalic acid, sugar of lead, or strychnine. 6. What symptoms and physical signs would lead you to suspect fatty degeneration of the heart? Describe minutely the appearances you would expect to find after death, and explain the origin of the fatty matter.

Clinical Examination, conducted at the Royal Infirmary, Dundee. 1. A medical case assigned to each candidate by the examiners; observations made during a limited time and afterwards reported on, *vivâ voce*, from notes taken by the candidates at the bedside.

2. Three special types of disease, observed and reported on by each candidate in succession as follows:

a. Encephaloid tumour of liver, to be examined by physical diagnosis *only*. Time allowed, a minute and a half. *b.* Moderate cyanosis, feeble circulation, heart's sound normal. Probable emphysema of lung. Time allowed, a minute and a half. *c.* Subacute phthisis pulmonalis, well-marked hectic. Time allowed a minute and a half. 3. Eleven specimens of urine, including normal and abnormal types, to be observed and reported on *vivâ voce*, in presence of the examiners.

It has been resolved that if a candidate does not acquit himself creditably in the clinical examination, no amount of excellence in the other departments will entitle him to a place in the list of honours.

PUBLIC HEALTH BILL. A Bill has been brought in by Mr. Adderley, M.P., and Mr. Secretary Walpole, for vesting in the Privy Council certain powers for the protection of the public health. The powers of the General Board of Health, under the 18th and 19th of Victoria are added to those of the Privy Council. The Council is further empowered to order inquiries in matters relating to the public health, to appoint medical officers on the discontinuance of the Board of Health, and to issue rules for securing the due qualification of public vaccinators.

PUBLIC PLAYGROUNDS. A Bill of Mr. Slaney, M.P., and Mr. Briscoe, M.P., enacts that any lands may be lawfully conveyed to trustees to be held by them as open public grounds for the resort and recreation of adults, and as playgrounds for children and youth, or for both purposes. No conveyance for this purpose need be stamped or enrolled. The first trustees for holding these grounds must be approved by the Charity Commissioners. The trustees will form a body corporate for the holding of such lands.

COLLEGIATE ELECTION. The annual election of fellows into the Council of the College will take place on Thursday, the 1st of July, on which occasion the vacancy occasioned by the decease of Mr. Travers will be filled up. The two retiring members will, no doubt, offer themselves for re-election.

A PRETERNATURAL BIRTH. The *Austrian Gazette* states that a woman, aged thirty-eight, residing at Sofunga, has just given birth to five children, three boys and two girls. Two died, three are in good health; one of the boys has six fingers to each hand.

TO CORRESPONDENTS.

Members should remember that corrections for the current week's JOURNAL should not arrive later than Wednesday.

POSTAGE OF MANUSCRIPT AND PRINTED MATTER.

Any amount of manuscript or printed matter, singly or together, provided it contains nothing in the form of a letter, is transmitted through the post, in packets *open at the ends*, at the following rates: not exceeding 4 ounces, one penny; above 4 and not exceeding 8 ounces, twopence; above 8 ounces and not exceeding 1 pound, fourpence; for every additional half-pound or under, twopence.

MR. DYER'S communication is unavoidably deferred till next week.

Communications have been received from: — MR. W. B. KESTEVEN; M.D.; MR. JAMES THWAITES; DR. T. HAYES JACKSON; MR. C. HOLTHOUSE; MR. HENRY JOHNSON; MR. DAVID THOMPSON; MR. JOHN THOMPSON; DR. GRAILY HEWITT; MR. WILLIAM NEWMAN; DR. SLOANE; MR. T. HOLMES; MR. HOLMES COOTE; DR. J. G. SWAYNE; DR. SKINNER; DR. T. H. BARKER; MR. S. S. DYER; MR. WATERS: MR. STONE; DR. C. HARWOOD; MR. F. J. SANDFORD; and MR. R. C. CROFT.

BOOKS RECEIVED.

[* *An Asterisk is prefixed to the names of Members of the Association.*]

1. Essay on the Pathology of the Blood and its Containing Vessels. By Thomas A. Wise, M.D. Edinburgh: A. & C. Black. 1858.
2. Electro-Chemistry, with Positive Results: and Notes for Inquiry on the Sciences of Geology and Astronomy; with a Tract of Miscellanies. By Charles Chalmers. London: Churchill. 1858.
3. Cancer: its Diagnosis, Prognosis, and Treatment, based upon Temperament, Diathesis, etc. By *J. Seaton Smyth. London: Piper, Stephenson, and Spence. 1858.
4. A Manual of Obstetrics: Theoretical and Practical. By *W. Tyler Smith, M.D. Illustrated with 185 Engravings. London: Churchill. 1858.
5. Hygiene, or Health depending upon the Conditions of the Atmosphere, Foods and Drinks, Motion and Rest, etc. By James H. Pickford, M.D. London: John Churchill. 1858.

ADVERTISEMENTS.

Just published, price 4s.

An Essay on Physiological Psychology.

BY ROBERT DUNN, F.R.C.S. Eng.

London: JOHN CHURCHILL, New Burlington Street.

Just published, price One Shilling,

An Effectual and Simple Remedy for SCARLATINA and MEASLES. In a Letter to JOHN SIMON, Esq., the Medical Officer of the General Board of Health, with an Appendix of Cases. By CHARLES WITT, Member of the Royal College of Surgeons, and Extra-Licentiate of the Royal College of Physicians of London. Published by PHILIP & SON, 32, Fleet Street, London, and South Castle Street, Liverpool.

NEW WORK ON BRITISH PLANTS.

Shortly will be ready, Part I of

British Wild Flowers, Illustrated by J. E. SOWERBY, described, with a Key to the Natural Orders, by C. PIERPOINT JOHNSON. To be completed in 20 Parts, each containing 4 Plates, or 80 Figures and Descriptions. Price, coloured, 3s.; plain, 1s. 6d. per Part. The entire Work will comprise about 1,600 Figures, and form one volume. Prospectuses and Specimens may be had through all Booksellers, or of the Publisher,

JOHN E. SOWERBY, 3, Mead Place, Lambeth, S.

Pepsine.—M. Boudault begs to state that he cannot be answerable for the purity and strength of any Preparation sold under his name unless obtained from his sole Agent, Mr. PETER SQUIRE, Her Majesty's Chemist, 277, Oxford Street, London, to whom all applications respecting it must be addressed.

Second Edition of Boudault on "Pepsine", with Remarks by English Physicians; edited by W. S. SQUIRE, Ph.D. Published by J. Churchill, London. May also be had of the Author, 277, Oxford Street. Price 6d.

Wines from South Africa.

DENMAN, introducer of the South African PORT, SHERRY, etc., TWENTY SHILLINGS per dozen. BOTTLES INCLUDED.

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MEDICAL BENEVOLENT FUND.

The Biennial Dinner will take place at ST. JAMES'S HALL, Regent Street, on THURSDAY, the 10th of JUNE, at Half-past Six o'clock, p.m.

THE RIGHT HON. THE EARL GRANVILLE WILL PRESIDE.

The Committee earnestly hope the Ladies will grace the Meeting with their attendance.

A Grand Military Band will occupy the Orchestra.

The following eminent vocalists are engaged: Mr. Lockey, Mr. Land, Miss Poole, and Miss Stabbach.

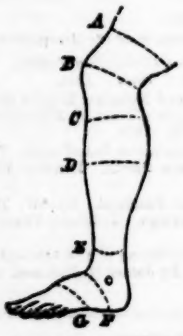
Ladies Tickets, including refreshments, 5s. each, may be obtained at Mr. CHURCHILL'S, 11 New Burlington Street.

N.B. A complete List of Stewards (upwards of 100 names already received), will be inserted in the *Medical Times*, *Lancet*, and *British Medical Journal*, of June the 5th.

N.B. The liability of a Steward is included in the amount of the Dinner Ticket—One Guinea—which if not used will be considered as a Donation. Gentlemen who have not yet given in their names as Stewards, are requested to direct to, or apply for Tickets to

WILLIAM SELF, Secretary.

Committee Rooms, 11, New Burlington Street.



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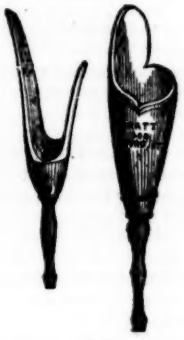

Continue to be found the best remedy for VARICOSE VEINS, and the most moderate in price, with or without extra pressure, acting LATERALLY, 4s. 6d. and 6s. 6d. each, thread; 9s., 12s., and 15s. each, best silk.

DIRECTIONS FOR MEASURING.

KNEE-CAP, length—A to C; circumferences—A, B, and C.
STOCKING, length from C to F, and circumferences at C, D, E, F, and G.
SOCK, circumferences—E, F, and G.

J. PRATT having had many years experience as a PRACTICAL WORKER in the manufacture of Surgical Instruments, calls the attention of the Profession to the quality of all Surgical Instruments and Appliances supplied by him.

Brass Enema Syringe, in Case . . .	7s. 6d.	Pocket Case	30s. & 42s.
Case of Amputating Instruments . . .	£3. 15s.	Tooth Instruments	from 25s.

Wooden and Artificial Legs, Crutches, Bandages, etc., at greatly reduced Prices.

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ESTABLISHMENT, 9, York Place, Baker Street, Portman Square, for the extraction of Mercury and other Metallic or Extraneous Substances, and the Treatment of Chronic Diseases. For the demonstration of th's new system, *vide* the Second Edition, price 1s., 8vo, of Dr. Caplin's Treatise on the Electro-Chemical Bath, and the Relation of Electricity to the Phenomena of Life, Health, and Disease. Sold at the Author's Establishment.

Crosse and Blackwell, Purveyors in

Ordinary to Her Majesty, respectfully invite attention to their PICKLES, Sauces, Tart Fruits, and other table delicacies, the whole of which are prepared with the most scrupulous attention to wholesomeness and purity. The practice of colouring pickles and tart fruits by artificial means has been discontinued, and the whole of their manufactures are so prepared that they are not allowed to come in contact with any deleterious ingredient. A few of the articles most highly recommended are, Pickles and Tart Fruits of every description, Royal Table Sauce, Essence of Shrimps, Soho Sauce, Essence of Anchovies, Jams, Jellies, Orange Marmalade, Anchovy and Bloater Pastes, Strasbourg and other Potted Meats, and Calf's-foot Jellies of various kinds for table use. C. and B. are also sole Agents for M. Soyer's Sauces, Relish, and Aromatic Mustard; and for Carstairs' Sir Robert Peel's Sauce, and Payne's Royal Osborne Sauce. The above may be obtained of most respectable Sauce Vendors throughout the United Kingdom; and Wholesale of

CROSSE and BLACKWELL, 21, Soho Square.

Seeds to be depended on.—Timothy

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